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The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF AGRICULTURE

Office of the Secretary

7 CFR Part 17

Financing of Commercial Sales of Agricultural Commodities; Editorial Amendments

AGENCY: Foreign Agricultural Service, USDA.

ACTION: Final rule.

SUMMARY: The Foreign Agricultural Service (FAS) is amending certain of its regulations applicable to the financing of the sale and exportation of agricultural commodities pursuant to Title I of the Agricultural Trade Development and Assistance Act of 1954, as amended (Pub. L. 480, 83rd Cong.) to correct addresses, cross-references and typographical errors and to add information on where certain forms may be obtained.

EFFECTIVE DATE: May 25, 1989.

FOR FURTHER INFORMATION CONTACT: Marvin L. Lehrer, Director, Pub. L. 480 Operations Division, Export Credits, Foreign Agricultural Service, U.S. Department of Agriculture, Washington, DC 20250-1000, Telephone: (202) 447-3664.

SUPPLEMENTARY INFORMATION: This action has been reviewed under USDA procedures established in accordance with Executive Order 12291 and Departmental Regulation 1512-1 and has been classified "nonmajor." It has been determined that this rule will not result in an annual effect on the economy of \$100 million or more; will not cause a major increase in costs to consumers, individual industries, Federal, State or local government agencies or geographic regions; and will not have an adverse effect on competition, employment, investment, productivity, innovation, or the ability of U.S. based enterprises to

compete with foreign based enterprises in domestic export markets.

FAS is amending certain of its regulations applicable to the financing of the sale and exportation of agricultural commodities pursuant to Title I of the Agricultural Trade Development and Assistance Act of 1954, as amended (Pub. L. 480, 83rd Cong.) to correct addresses, cross-reference and typographical errors and to add information on where certain forms may be obtained. References herein to Section 17.14 are as amended by the Federal Register publication dated April 10, 1989, 54 FR 14199, effective May 25, 1989.

The amendments are wholly editorial in nature. For this reason, it is found upon good cause that the notice, public procedure and delayed effective provisions of 5 U.S.C. 553 are unnecessary.

List of Subjects in 7 CFR Part 17

Agricultural commodities, Exports, Finance, Maritime carriers.

Accordingly, 7 CFR Part 17, Subpart A, is amended as follows:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Secs. 101-115, Pub. L. 480, 83rd Cong., as amended, 68 Stat. 455 (7 U.S.C. 1701 et. seq.); E.O. 12220, 45 FR 44245.

§§ 17.1, 17.7, 17.10, 17.14 and Appendix A [Amended]

2. Sections 17.1(f), 17.7(c)(4)(i), 17.10(b)(5), and 17.14(c)(2), and Appendix A, Sections (B)(6)(a) and (F)(4)(a) are amended by changing the zip code for the Pub. L. 480 Operations Division from "20250" to "20250-1000."

3. In § 17.1(f), the third sentence is revised to read as follows: "Information about financing operations under these regulations, including forms prescribed for use thereunder, is available from the Controller, Commodity Credit Corporation, U.S. Department of Agriculture, P.O. Box 2415, Washington, DC 20013."

4. Section 17.2(b), is amended by revising the definition of "Notice of arrival" to read as follows:

§ 17.2 Definition of terms.

* * * * *

(b) * * *

Notice of arrival means a written notice or copy of a cablegram in accordance with § 17.14(g) stating that the vessel has arrived at the first port of discharge.

§ 17.7 [Amended]

4. Section 17.7(c)(3)(ii) is amended by removing "(b)(3)" and replacing it with "(c)(3)."

5. Sections 17.7(c)(4)(iii), 17.14(c)(1) and 17.21 and Appendix A, Sections (V)(1), (V)(6), (V)(10), (W)(1) and (W)(10) are amended by changing the address of the Kansas City ASCS Commodity Office from "P.O. Box 8510, Kansas City, Missouri 64114" to "P.O. Box 205, Kansas City, Missouri 64141-0205."

§ 17.8 [Amended]

6. Section 17.8(c)(4) is amended by removing "17.14(i)(8)" and replacing it with "17.14(j)(8)."

§ 17.14 [Amended]

7. Section 17.14(a)(2) is amended by removing "(b)" and replacing it with "(c)."

8. Section 17.14(e)(2) is amended by removing "(d)(1)" and replacing it with "(e)(1)."

9. Section 17.14(e)(3) is amended by removing "(d)(4)" and replacing it with "(e)(4)" and removing "(k)(7)" and replacing it with "(l)(7)."

10. Section 17.14(e)(4) is amended by removing "(k)(7)" and replacing it with "(l)(7)" and removing "§ 17.14(l)" and replacing it with "17.14(m)."

11. Section 17.14(k)(4) is amended by removing "(j)(3)" and replacing it with "(k)(3)."

12. Section 17.14(l)(5) is amended by removing "(k)" and replacing it with "(l)."

13. Section 17.14(l)(7) is amended by removing "(k)(8)" and replacing it with "(l)(8)."

14. Section 17.14(l)(8) is amended by removing "(k)(7)" and replacing it with "(l)(7)."

15. Section 17.14(l)(9) is amended by removing "(k)(8)" and replacing it with "(l)(8)."

§ 17.18 [Amended]

16. Section 17.18(d)(6) is amended by removing "§ 17.14(m)" and replacing it with "17.14(n)."

17. Section 17.18(d)(7) is amended by removing "§ 17.14(j)(1)" and replacing it with "§ 17.14(k)(1)."

Signed at Washington, DC, on May 16, 1989.

Christopher E. Goldthwait,

Acting General Sales Manager, Foreign Agricultural Service; and Acting Vice President, Commodity Credit Corporation.

[FR Doc. 89-12175 Filed 5-19-89; 8:45 am]

BILLING CODE 3410-10-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 88-NM-117-AD; Amdt. 39-6219]

Airworthiness Directives; Boeing Model 737 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 737 series airplanes, which requires inspection for fatigue cracks in certain forward cargo compartment body frames, and repair, if necessary. The existing AD also includes an optional modification which, if incorporated, would terminate the repetitive inspections. Subsequent reassessment has shown that repetitive inspections of the modified structure are required to maintain safety. Additional service experience also indicates that the area requiring inspections must be expanded and the applicability of the AD must be increased to include later airplanes on which the original modification was incorporated in production. This amendment supersedes the existing AD and expands applicability, the areas of inspection, and requires continued inspections of modified frames to maintain safety. Failure to detect failed fuselage frames may result in sudden loss of cabin pressure and structural failure.

DATE: Effective June 22, 1989.

ADDRESSES: The applicable service information may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT:

Ms. Barbara J. Mudrovich, Airframe Branch, ANM-120S; telephone (206) 431-1927. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION:

A proposal to amend Part 39 of the Federal Aviation Regulations by superseding AD 81-13-08, Amendment 39-4141 (46 FR 32228; June 22, 1981), applicable to certain Boeing Model 737 series airplanes, to expand the applicability and areas of inspection, and delete the terminating modification while maintaining other aspects of the existing AD, was published in the *Federal Register* on December 16, 1988 (53 FR 50545).

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

The Air Transport Association (ATA) of America submitted comments on behalf of three of its members. One member airline requested that, since the proposed rule referred to Boeing Alert Service Bulletin 737-53A1027, Revision 3, and not the most recent revision, the statement "or later FAA-approved revisions" should be used. The FAA does not concur. FAA policy is to specify only available FAA-approved service bulletin revisions. Approval of use of later revisions may be accomplished by means of the alternate means of compliance provisions. Since this proposal referred to a service bulletin revision level which is not the most current, the final rule has been revised in paragraph D to add a note approving the use of Revisions 4, 5, and 6 as alternate means of compliance for the inspections and repairs required.

The same member airline also requested that the final rule allow the modification in accordance with Boeing Service Bulletin 737-53-1069 as an acceptable alternate method of compliance, since it satisfies the intent of Boeing Alert Service Bulletin 737-53A1027. The FAA agrees with the commenter and the final rule has been changed as noted previously, to allow the use of Revision 4 to Boeing Alert Service Bulletin 737-53A1027, which in turn identifies Boeing Service Bulletin 737-53-1069 as an alternate modification.

A second member airline commented that modification should be mandatory prior to the accumulation of 75,000 cycles or within 12,000 cycles, whichever occurs later, to provide consistency between the final rule and

the recommendations of the ATA 737 Structures Working Group (SWG). (The ATA 737 SWG is a part of the Aging Aircraft Task Force, composed of representatives from airlines, manufacturers, industry, and the FAA, which was formed to identify and implement procedures to ensure continuing structural airworthiness of aging transport category airplanes.) The FAA concurs in part with this suggestion. Although such a requirement would be beyond the scope of this final rule, the FAA is currently considering additional rulemaking which would require certain modifications as recommended by the ATA 737 SWG; the subject modification is one of those. Therefore, the final rule is issued as proposed.

A third member airline commented that the initial compliance time should be increased from 100 to 1,000 cycles since internal inspection is not required for 2,400 cycles. The FAA does not agree. This rule is superseding an AD which had an initial compliance time of 100 cycles. Airplanes now affected by this proposal, due to expanded applicability, require the same level of inspection to provide an acceptable level of safety as airplanes currently affected. Therefore, the final rule is issued as proposed.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the following rule, with the changes previously noted. These changes will neither increase the economic burden on any operator, nor increase the scope of the AD.

There are approximately 967 Model 737 series airplanes of the affected design in the worldwide fleet. It is estimated that 301 airplanes of U.S. registry will be affected by this AD, that it will take approximately 80 hours per airplane to accomplish the required actions, and that the average labor cost will be \$40 per hour. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$963,200.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, the FAA has determined that this regulation is not considered to be major under Executive Order 12291 or significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and it is further certified under the criteria of the Regulatory Flexibility Act that this rule will not have a significant economic impact, positive or negative, on a substantial number of small entities, because few, if any, Model 737 airplanes are operated by small entities. A final evaluation has been prepared for this regulation and has been placed in the docket.

List of Subjects in 14 CFR Part 39

Aviation safety, Aircraft.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) as follows:

PART 39—[AMENDED]

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By superseding AD 81-13-08, Amendment 39-4141 (46 FR 32228; June 22, 1981), with the following new airworthiness directive:

Boeing: Applies to Model 737 series airplanes, listed in Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983, certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent failure of the forward lower cargo compartment frames, accomplish the following:

A. Except as provided by paragraph B., below, accomplish one of the following prior to the accumulation of 29,000 landings or within the next 100 landings after the effective date of this AD, whichever occurs later:

1. a. Unless previously accomplished within the last 200 landings, conduct a close external visual inspection of the fuselage skin for cracks in the region of the frames specified by Boeing Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983. Reinspect at intervals not to exceed 300 landings until the frames are inspected in accordance with paragraph A.1.b., below. If cracks are found, prior to further flight, repair fuselage skin in accordance with an FAA-approved method and visually inspect the fuselage frames specified by the aforementioned service bulletin for cracks. Frames found cracked must be repaired prior to further flight, in accordance with the service bulletin.

b. Within 2,400 landings after the effective date of this AD and thereafter at intervals not to exceed 9,000 landings, conduct a visual inspection for cracks of the fuselage frames specified in paragraph A.1.a., above. If cracks are found, repair fuselage frames, prior to further flight, in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983.

2. Unless previously accomplished within the last 1,900 landings, conduct an x-ray inspection for cracks of the fuselage frames specified in paragraph A.1.a., above, in accordance with procedures described in the Boeing Model 737 Nondestructive Test Manual D6-37239, Part 2, Subject 53-10-16. Reinspect at intervals not to exceed 2,000 landings. If cracks are found, repair fuselage frames prior to further flight, in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983.

3. Unless accomplished within the last 8,900 landings, perform an internal visual inspection for cracks of the fuselage frames specified in paragraph A.1.a., above. Reinspect at intervals not to exceed 9,000 landings. If cracks are found, repair fuselage frames prior to further flight, in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983.

4. Unless previously accomplished within the last 8,900 landings, conduct a low frequency eddy current inspection for cracks of the fuselage frames specified in paragraph A.1.a., above, in accordance with procedures described in Boeing Model 737 Nondestructive Test Manual D6-37239, Part 6, Subject 53-10-01. Reinspect at intervals not to exceed 9,000 landings. If cracks are found, repair fuselage frames prior to further flight, in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983.

B. For those airplanes that have been modified in accordance with Part III of Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983, or the terminating modification described in AD 81-13-08: Prior to the accumulation of 15,600 landings after modification or within the next 1,000 landings after the effective date of this AD, whichever occurs later, perform the inspection described in paragraph A.3., above, and repeat thereafter at intervals not to exceed 15,600 landings. As an alternate to this repetitive inspection, the external inspection described in paragraph A.1.a., above, may be performed at intervals not to exceed 6,600 landings. If cracks are found, repair fuselage skins and frames prior to further flight, in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 3, dated December 2, 1983, or in a manner approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region. These repairs do not constitute terminating action and are subject to the repetitive inspection requirements of this paragraph.

C. For the purposes of complying with this AD, the number of landings may be determined to equal the number of pressurization cycles where the cabin pressure differential was greater than 2.0 PSI.

D. An alternate means of compliance or adjustment of the compliance time, which

provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

Note: The request should be forwarded through an FAA Principal Maintenance Inspector (PMI), who may add any comments and then send it to the Manager, Seattle Aircraft Certification Office.

Note: Inspection and Modification in accordance with Boeing Alert Service Bulletin 737-53A1027, Revision 4, dated July 13, 1984, Revision 5, dated February 1, 1985, and Revision 6, dated August 25, 1988, are acceptable alternate means of compliance for this AD.

E. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon request to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

This amendment supersedes AD 81-13-08, Amendment 39-4141.

This amendment becomes effective June 22, 1989.

Issued in Seattle, Washington, on May 8, 1989.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 89-12193 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 39

[Docket No. 89-NM-66-AD; Amdt. 39-6223]

Airworthiness Directives; Boeing Model 737-300 and -400 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737-300 and -400 series airplanes, which requires operators to conduct repetitive leak checks on the forward lavatory service system, and repair, as necessary, to drain the system, lock the lavatory(s), and placard it inoperative. This amendment is prompted by several reports of leakage from the forward

lavatory service system that has caused "blue ice" to form on the fuselage and to be subsequently ingested into the Mr. @ right engine. This condition, if not corrected, could result in the shutdown of an engine or separation of the engine from the airplane.

DATES: Effective June 5, 1989.

ADDRESSES: The applicable service information may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. This information may be examined at FAA, Northwest Mountain Region, Transport Airplane Directorate, 17900 Pacific Highway South, Seattle, Washington, or Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Mr. David Herron, Systems and Equipment Branch, ANM-130S; telephone (206) 431-1949. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION: Several reports have been received of leakage from the forward lavatory service system on Boeing Model 737-300 and -400 series airplanes that has resulted in "blue ice" forming on the fuselage and subsequently being ingested into the right engine. One of these incidents caused the loss of a fan blade and subsequent severe engine damage, necessitating an in-flight shutdown. Ingestion of ice from this source into the engine could result in separation of the engine from the airplane.

The FAA has reviewed and approved Boeing Telex No. M-7272-89-2127, dated April 25, 1989, which provides procedures for performing a leak check of the forward lavatory service system, and repairing any leakage detected.

Since this condition is likely to exist or develop on other airplanes of the same type design, this AD requires that the lavatory be drained, locked, and placarded inoperative; or that the leak check be performed, in accordance with the Boeing Telex above, within 200 hours time-in-service of the AD effective date and every 200 hours time-in-service thereafter, and leaks repaired, if necessary.

This action is considered to be interim action. Terminating action will involve a means of preventing "blue ice" from being ingested into the airplane engines when leakage does occur in the forward lavatory service system. This means is not available at this time, but when it is available, the FAA may consider further rulemaking to revise this AD to require the appropriate changes.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable, and good cause exists for making this amendment effective in less than 30 days.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation and is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this document involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation is not required). A copy of it, when filed, may be obtained from the Rules Docket.

List of Subjects in 14 CFR Part 39

Aircraft, Aviation safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends Part 39 of the Federal Aviation Regulations (14 CFR Part 39) as follows:

PART 39—[AMENDED]

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

Boeing: Applies to Model 737-300 and -400 series airplanes, certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent the ingestion of "blue ice" into the engine and the potential loss of an engine, accomplish the following:

A. Within 200 hours time-in-service after the effective date of this AD:

1. Conduct a leak check of the forward lavatory service system, in accordance with Boeing Telex M-7272-89-2127 dated April 25, 1989, and repeat the check at intervals thereafter not to exceed 200 hours time-in-service; or

2. Drain the forward lavatory system, lock the lavatory(s), and placard the lavatory(s) inoperative.

B. Leaks discovered at any time must be repaired prior to further flight, or the forward lavatory system must be drained, and the lavatory(s) locked and placarded inoperative, prior to further flight.

C. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

Note: The request should be forwarded through an FAA Principal Maintenance Inspector (PMI), who will either concur or comment and then send to the manager, Seattle Aircraft Certification Office.

D. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of the inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington, 98124. This information may be examined at the FAA, Northwest Mountain Region, Transport Airplane Directorate, 17900 Pacific Highway South, Seattle, Washington, or at the Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective June 5, 1989.

Issued in Seattle, Washington, on May 9, 1989.

Leroy A. Keith,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 89-12194 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 39

[Docket No. 88-ASW-45; Amdt. 39-6218]

Airworthiness Directives; McDonnell Douglas Helicopter Company (MDHC) Model 369 Series Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) applicable to MDHC Model 369 series helicopters which supersedes AD 79-18-11. The new AD requires initial and repetitive inspections and checks of main rotor blade root fitting assemblies and main rotor hub lead-lag link assemblies for fatigue cracks and corrosion, and removal of cracked or broken parts from service on MDHC 369 series helicopters. The new AD is needed to prevent failure of the main rotor blade root fittings or the hub lead-lag links which could result in loss of a main rotor blade in flight with subsequent loss of the helicopter.

DATES: Effective June 12, 1989.

Compliance: As indicated in the body of the AD.

ADDRESSES: The applicable service information notices may be obtained from MDHC Technical Publications, Building 543/D214, McDonnell Douglas Helicopter Company, 5000 E. McDowell Road, Mesa, Arizona 85205-9797; telephone (602) 891-6484, or may be examined in the Rules Docket, Office of the Assistant Chief Counsel, FAA, 4400 Blue Mound Road, Room 158, Building 3B, Fort Worth, Texas.

FOR FURTHER INFORMATION CONTACT: Mr. Sol Davis, Aerospace Engineer, Airframe Branch, ANM-123L, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 3229 E. Spring Street, Long Beach, California 90806-2425; telephone (213) 988-5233.

SUPPLEMENTARY INFORMATION: AD 79-18-11, Amendment 39-3542 (44 FR 50030; August 27, 1979), as amended by AD 79-18-11R1, Amendment 39-4188 (46 FR 40868; August 31, 1981), currently requires initial and repetitive inspections of certain main rotor blade root fitting assemblies and main rotor hub lead-lag link assemblies on MDHC Model 369D helicopters. After issuing AD 79-18-11, as amended by AD 79-18-11R1, the FAA has determined that cracking of the main rotor blade fitting attach lugs and the lead-lag links has occurred on later dash number and serial number parts not included in AD 79-18-11R1. Also, anticorrosion treatments of the main rotor hub lead-lag link assemblies, part number (P/N) 369H1203, have been proven ineffective. These parts are also installed on other MDHC Model 369 series helicopters. Therefore, the FAA is superseding AD 79-18-11, as amended by AD 79-18-11R1, with a new AD requiring inspection and checks of previously modified parts (assemblies with the suffix letter "M" added to the serial

number which were originally affected by AD 79-18-11 and subsequently modified by MDHC to incorporate anticorrosion provisions) and parts with later serial numbers and dash numbers; extension of the applicability to other MDHC Model 369 series helicopters; and removal of damaged parts from service. The applicable main rotor blade assemblies have P/N's 369A1100-BSC, -501, -503, -505, -601, 369D21100-BSC, -503, -505, -507, -509, -511, -513, and 369D21102-BSC. The applicable main rotor hub lead-lag link assemblies have P/N's 369A1203-BSC, -3, -11, 369H1203-BSC, -11, -21, and -31.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and good cause exists for making this amendment effective in less than 30 days.

The regulations adopted herein will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation and that it is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Executive Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it, when filed, may be obtained by contacting the Rules Docket at the location provided under the caption "Addresses."

List of Subjects in 14 CFR Part 39

Aircraft, Aviation safety

Adoption of the Amendment

PART 39—AIRWORTHINESS DIRECTIVES

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends § 39.13 of Part 39 of the Federal

Aviation Regulations (14 CFR 39.13) as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g) (Revised, Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

2. Section 39.13 is amended by adding the following new AD:

McDonnell Douglas Helicopter Company:

Applies to MDHC Model 369 series helicopters, certificated in any category, when equipped with any of the following parts: (1) Main rotor blade assemblies having P/N's 369A1100-BSC, -501, -503, -505, -601, 369D21100-BSC, -503, -505, -507, -509, -511, -513, and 369D21102-BSC; and (2) Main rotor hub lead-lag link assemblies having P/N's 369A1203-BSC, -3, -11, 369H1203-BSC, -11, -21, -31. (Docket No. 88-ASW-45)

Compliance is required as indicated, unless previously accomplished.

To detect cracks in the main rotor blade attach lugs or in the main rotor lead-lag attach lugs, which could result in the failure of a main rotor blade and consequent loss of control of the helicopter, accomplish the following:

(a) Within 25 hours' time in service after the effective date of this AD, and thereafter at intervals not to exceed 100 hours' time in service from the last inspection, conduct an inspection of the exposed portions of the attach lugs of the main rotor blade root fittings, P/N's 369A1100-BSC, -501, -503, -505, -601, 369D21100-BSC, -503, -505, -507, -509, -511, -513; 369D21102-BSC, and of the exposed portions of the attach lugs of the main rotor hub lead-lag links, P/N's 369A1203-BSC, -3, -11; 369H1203-BSC, -11, -21, and -31.

Note: McDonnell Douglas Helicopter Company Service Information Notices HN-211.1, DN-51.3, EN-42.1 and FN-31.1 pertain to this inspection.

(b) Within 25 hours' time in service after the initial inspection required by paragraph (a) and at intervals not to exceed 25 hours' time in service thereafter, unless it coincides with the repetitive inspections required by paragraph (a), visually check the exposed portions of all the main rotor blade upper and lower root fitting attach lugs and main rotor hub lead-lag link attach lugs for broken or cracked lugs. The checks required by this paragraph may be performed by a pilot and must be recorded in accordance with § 43.9. The record must be maintained as required by §§ 91.173, 121.380, or 135.439.

(c) If, as a result of the inspection or check required by paragraph (a) or (b) above, broken or cracked lugs are found in any main rotor blade root fitting, P/N's 369A1113 and 369A1114, remove the blade from service and replace with a serviceable blade prior to further flight.

(d) If, as a result of the inspection or check required by paragraph (a) or (b) above, broken or cracked lugs are found in any main rotor lead-lag link, remove the main rotor hub assembly, P/N 369D21200-BSC on helicopter Models 369D, E, F, FF; P/N 369A1200-BSC or

369H1200-BSC on helicopter Models 369A (OH-6A), H, HE, HM, and HS, from service and replace with a serviceable part prior to further flight.

(e) In accordance with §§ 21.197 and 21.199, the helicopter may be flown to a base where compliance with the AD may be accomplished.

(f) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, Los Angeles Aircraft Certification Office, FAA, Northwest Mountain Region, 3229 E. Spring Street, Long Beach, California 90806-2425.

This amendment supersedes AD 79-18-11, Amendment 39-3542 (44 FR 50030; August 27, 1979), as amended by AD 79-18-11R1, Amendment 39-4188 (46 FR 40868; August 31, 1981).

This amendment becomes effective June 12, 1989.

Issued in Fort Worth, Texas, on May 5, 1989.

James D. Erickson,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service

[FR Doc. 89-12195 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 39

[Docket No. 89-ASW-07; Amdt. 39-6217]

Airworthiness Directives; McDonnell Douglas Helicopter Company (MDHC) Model 369A (OH-6A) and H Series Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) which imposes a reduction in the finite service life of certain tail rotor strap pack assemblies on MDHC Model 369A (OH-6A) and H series helicopters. The AD is needed to prevent failure of these strap pack assemblies which could result in loss of the helicopter.

DATES: Effective June 6, 1989.

Compliance: As indicated in the body of the AD.

FOR FURTHER INFORMATION CONTACT: Mr. Sol Davis, Aerospace Engineer, Airframe Branch, ANM-123L, Northwest Mountain Region, Los Angeles Aircraft Certification Office, 3229 E. Spring Street, Long Beach, California 90806-2425; telephone (213) 988-5233.

SUPPLEMENTARY INFORMATION: The FAA has determined that tail rotor strap pack assemblies, Part Number (P/N) 369A1706-BSC, used with fiberglass tail rotor blades, P/N 369A1607-BSC,

369A1710-BSC, -9, -11, or -13 have a reduced finite service life compared to the same strap pack assemblies used with the aluminum tail rotor blades, P/N 369A1613. This is based upon the FAA's receipt from the manufacturer of revised fatigue analysis substantiating data. Since this condition is likely to exist or develop on other helicopters of the same type design, an AD is being issued which requires removal of the affected strap packs from service upon reaching 3,250 hours' time in service on MDHC Model 369A (OH-6A) and H series helicopters.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and good cause exists for making this amendment effective in less than 30 days.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation and that it is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Executive Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it, when filed, may be obtained from the Regional Rules Docket.

List of Subjects in 14 CFR Part 39

Aircraft, aviation safety.

Adoption of the Amendment

PART 39—AIRWORTHINESS DIRECTIVES

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends Section 39.13 of Part 39 of the

Federal Aviation Regulations (14 CFR 39.13) as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

2. Section 39.13 is amended by adding the following new AD:

McDonnell Douglas Helicopter Company:
Applies to Model 369A (OH-6A) and H series helicopters, certified in any category, which are equipped with strap pack assemblies, P/N 369A1706-BSC, and have fiberglass tail rotor blades, P/N 369A1607-BSC, 369A1710-BSC, -9, -11 or -13, installed. (Docket No. 89-ASW-07)

Note: Strap pack assemblies installed with aluminum tail rotor blades, P/N 369A1613, are not affected by the finite service life reduction unless the strap pack assemblies have been operated with fiberglass tail rotor blades that have been previously installed; in which case, the reduction in finite life applies.

Compliance is required as indicated, unless already accomplished. To prevent possible fatigue failure of the tail rotor strap pack assembly, which could result in loss of control of the helicopter, accomplish the following:

(a) Within 15 days after the effective date of this AD, conduct an inspection of the helicopter log book to determine if a listed fiberglass blade is, or previously has been, installed on the affected tail rotor strap pack assemblies.

(b) For tail rotor strap pack assemblies, P/N 369A1706-BSC, which have been equipped with a listed fiberglass blade and for strap packs for which the blade type cannot be determined, the following applies:

(1) For strap pack assemblies which have 3,200 or more hours' time in service on the effective date of this AD, replace the strap pack with a serviceable unit within the next 50 hours' time in service.

(2) For strap pack assemblies which have less than 3,200 hours' time in service on the effective date of this AD, replace the strap pack with a serviceable unit before the accumulation of 3,250 hours' time in service.

(c) In accordance with §§ 21.197 and 21.199, the helicopter may be flown to a base where compliance with the AD may be accomplished.

This amendment becomes effective on June 6, 1989.

Issued in Fort Worth, Texas, on May 5, 1989.

James D. Erickson,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 89-12195 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 71

[Airspace Docket No. 88-ASW-39]

**Establishment of Transition Area:
George West, TX; Correction****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Correction to final rule.

SUMMARY: This action corrects a typographical error that was published in the *Federal Register* on April 10, 1989, (54 FR 14211) Document 88-ASW-39, concerning the latitude and longitude coordinates of the Live Oak Airport. The correct coordinates of the Live Oak Airport are as follows:

Latitude—28°21'48" N.
Longitude—98°06'59" W.

EFFECTIVE DATE: May 22, 1989.

FOR FURTHER INFORMATION CONTACT:
Bruce C. Beard, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Department of Transportation, Federal Aviation Administration, Fort Worth, TX 76193-0530, telephone (817) 624-5561.

Issued in Fort Worth, TX, on May 5, 1989.

Larry L. Craig,

Manager, Air Traffic Division, Southwest Region.

[FR Doc. 89-12201 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF COMMERCE**Bureau of Export Administration****15 CFR Parts 770, 771, 774 and 779**

[Docket No. 90409-9109]

**Exports to Australia and COCOM
Membership****AGENCY:** Bureau of Export Administration, Commerce.**ACTION:** Final rule.

SUMMARY: Australia has joined the Coordinating Committee, or COCOM, a multilateral organization that cooperates in restricting strategic exports to controlled countries. Other members of COCOM include Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Turkey, the United Kingdom and the United States. As a result, the Department of Commerce is amending the Export Administration Regulations (15 CFR Parts 730-799) to provide Australia the same favored treatment as other COCOM

participating countries including General Licenses G-COM, GCG, and G-CEU, shorter processing time frames for validated licenses to Australia, and elimination of U.S. reexport authorization for reexports from Australia to the People's Republic of China (PRC) of commodities described in the Advisory Notes for the PRC or Country Groups QWY. This action will lessen the administrative burden on U.S. exporters and their foreign customers and at the same time enhance the effectiveness of COCOM.

EFFECTIVE DATE: This rule is effective May 22, 1989.

FOR FURTHER INFORMATION CONTACT: David Schlechty, Office of Technology and Policy Analysis, Bureau of Export Administration, Telephone: (202) 377-4252.

SUPPLEMENTARY INFORMATION:**Rulemaking Requirements**

1. This rule is consistent with Executive Orders 12291 and 12661.
2. This rule involves collections of information subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These collections have been approved by the Office of Management and Budget under Control Numbers 0694-0005 and 0694-0010.
3. This rule does not contain policies with Federalism implications sufficient to warrant preparation of a Federalism assessment under Executive Order 12612.

4. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule by section 553 of the Administrative Procedure Act (5 U.S.C. 553), or by any other law, under sections 603(a) and 604(a) of the Regulatory Flexibility Act (5 U.S.C. 603(a) and 604(a)) no initial or final Regulatory Flexibility Analysis has to be or will be prepared.

5. Section 13(a) of the Export Administration Act of 1979 (EAA), as amended (50 U.S.C. app. 2412(a)), exempts this rule from all requirements of section 553 of the Administrative Procedure Act (APA) (5 U.S.C. 553), including those requiring publication of a notice of proposed rulemaking, an opportunity for public comment, and a delay in effective date. This rule is also exempt from these APA requirements because it involves a foreign and military affairs function of the United States. Section 13(b) of the EAA does not require that this rule be published in proposed form because this rule does not impose a new control. Further, no other law requires that a notice of proposed rulemaking and an opportunity

for public comment be given for this rule.

Accordingly, it is being issued in final form. However, comments from the public are always welcome. Comments should be submitted to Patricia Muldonian, Office of Technology and Policy Analysis, Bureau of Export Administration, Department of Commerce, P.O. Box 273, Washington, DC 20044.

List of Subjects in 15 CFR Parts 770, 771, 774, and 779

Administrative practice and procedures, Computer technology, Exports, Reporting and recordkeeping requirements, and Science and technology.

Accordingly, Parts 770, 771, 774, and 779 of the Export Administration Regulations (15 CFR Parts 730-799) are amended as follows:

1. The authority citations for Parts 770, 771, 774 and 779 continue to read as follows:

Authority: Pub. L. 96-72, Stat. 503 (50 U.S.C. app. 2401 et seq.), as amended by Pub. L. 97-145 of December 29, 1981, by Pub. L. 99-64 of July 12, 1985 and by Pub. L. 100-418 of August 23, 1988; E.O. 12525 of July 12, 1985 (50 FR 28757, July 16, 1985); Pub. L. 95-223 of December 28, 1977 (50 U.S.C. 1701 et seq.); E.O. 12532 of September 9, 1985 (50 FR 36861, September 10, 1985) as affected by notice of September 4, 1986 (51 FR 31925, September 8, 1986); Pub. L. 99-440 of October 2, 1986 (22 U.S.C. 5001 et seq.); and E.O. 12571 of October 27, 1986 (51 FR 39505, October 29, 1986).

PART 770—[AMENDED]**§ 770.2 [Amended]**

2. Section 770.2, in the definition of COCOM (Coordinating Committee), is amended by revising the second sentence to read as follows: "It consists of 17 member nations: Australia, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Turkey, the United Kingdom and the United States."

§ 770.14 [Amended]

3. Section 770.14(a)(3)(i) is amended by adding the word "Australia," immediately before the word "Belgium,".

PART 771—[AMENDED]

4. Section 771.8(b) is amended by adding the word "Australia" immediately before the word "Austria"

PART 774—[AMENDED]

5. Section 774.3, paragraph (e)(1)(ii) is amended by adding the word "Australia," immediately before the word "Belgium,".

PART 779—[AMENDED]**§ 779.4 [Amended]**

6. Section 779.4(f)(2)(ii)(C), the final paragraph of the note is amended by adding the word "Australia," immediately before the word "Belgium,".

§ 779.8 [Amended]

7. Section 779.8(b)(3)(ii) is amended by adding the word "Australia" immediately before the word "Belgium,".

Dated: May 18, 1989.

James M. LeMunyon,

Deputy Assistant Secretary for Export Administration.

[FR Doc. 89-12316 Filed 5-18-89; 8:45 am]

BILLING CODE 3510-DT-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 178

[Docket No. 88F-0118]

Indirect Food Additives, Adjuvants, Production Aids, and Sanitizers

AGENCY: Food and Drug Administration.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the food additive regulations to provide for the safe use of hydrogen peroxide, peroxyacetic acid, acetic acid, sulfuric acid, and 2,6-pyridinedicarboxylic acid as components of a sanitizing solution for use on food-processing equipment and utensils, including dairy-processing equipment. This action responds to a petition filed by Diversey Wyandotte Corp.

DATES: Effective May 22, 1989; written objections and requests for a hearing by June 21, 1989.

ADDRESS: Written objections to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Gillian Robert-Baldo, Center for Food Safety and Applied Nutrition (HFF-335), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-472-5690.

SUPPLEMENTARY INFORMATION: In a notice published in the *Federal Register* of May 26, 1988 (53 FR 19045), FDA announced that a food additive petition (FAP 8H4076) had been filed by Diversey Wyandotte Corp., 1532 Biddle Ave., Wyandotte, MI 48192, proposing that § 178.1010 *Sanitizing solutions* (21 CFR 178.1010) be amended to provide for the safe use of hydrogen peroxide, peroxyacetic acid, acetic acid, sulfuric acid, and 2,6-pyridinedicarboxylic acid as components of a sanitizing solution for use on food-processing equipment and utensils.

I. Safety of Petitioned Use of the Additives

Sanitizing solutions are mixtures of chemicals. Each listed component in a sanitizing solution must have a functional effect. The subject sanitizing solution contains hydrogen peroxide, peroxyacetic acid, acetic acid, sulfuric acid, and 2,6-pyridinedicarboxylic acid. The functions of each component, and the basis for FDA's determination on their safety, are described below.

A. Hydrogen Peroxide

Hydrogen peroxide is reactant used to form the antimicrobial agent in the subject sanitizing solution. It is used in a regulated sanitizing solution listed in 21 CFR 178.1010(b)(30) and (c)(25). On the basis of the data submitted in support of this regulated use and the data contained in the food additive petition submitted in support of listing this sanitizing solution, FDA finds that the use of hydrogen peroxide in the subject sanitizing solution is safe.

B. Acetic Acid

Acetic acid functions as a reactant used to form the antimicrobial agent and as a pH control agent in the subject sanitizing solution. Acetic acid is used in a regulated sanitizing solution listed in 21 CFR 178.1010(b)(30) and (c)(25). On the basis of the data submitted in support of this regulated use, the data contained in the food additive petition submitted in support of listing this sanitizing solution, and other available data, FDA finds that the use of acetic acid in the subject sanitizing solution is safe.

C. Peroxyacetic Acid

Peroxyacetic acid functions as the antimicrobial agent that is formed from hydrogen peroxide and acetic acid in the subject sanitizing solution. It is used in a regulated sanitizing solution listed in 21 CFR 178.1010(b)(30) and (c)(25). On the

basis of the data submitted in support of this regulated use, and the data contained in the food additive petition submitted in support of this sanitizing solution, FDA finds that the use of peroxyacetic acid in the subject sanitizing solution is safe.

D. Sulfuric Acid

Sulfuric acid functions as a reaction catalyst in the subject sanitizing solution. On the basis of the data contained in the food additive petition submitted in support of listing this sanitizing solution, and other available data, FDA finds that the use of sulfuric acid in the subject sanitizing solution is safe.

E. 2,6-Pyridinedicarboxylic Acid

2,6-Pyridinedicarboxylic acid functions as a stabilizer in the subject sanitizing solution by chelating metallic impurities. 2,6-Pyridinedicarboxylic acid is not currently regulated. On the basis of the data contained in the food additive petition submitted in support of listing this sanitizing solution, FDA finds that the use of 2,6-Pyridinedicarboxylic acid in the subject sanitizing solution is safe.

FDA has evaluated data in the petition and other relevant material. The agency concludes that the proposed food additive use is safe and effective, and that the regulation in 21 CFR 178.1010 should be amended by adding paragraphs (b)(38) and (c)(33) as set forth below. The agency also concludes that the data in the petition supports the use of this sanitizing solution on dairy-processing equipment as well as on other food-processing equipment and utensils.

In accordance with § 171.1(h) (21 CFR 1271.1(h)), the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition are available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above. As provided in 21 CFR 171.1(h), the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

II. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an

environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

III. Filing of Objections

Any person who will be adversely affected by this regulation may at any time on or before June 21, 1989 file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

List of Subjects in 21 CFR Part 178

Food additives, Food packaging.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Director, Center for Food Safety and Applied Nutrition, Part 178 is amended as follows:

PART 178—INDIRECT FOOD ADDITIVES; ADJUVANTS, PRODUCTION AIDS, AND SANITIZERS

1. The authority citation for 21 CFR Part 178 continues to read as follows:

Authority: Secs. 201(s), 409, 72 Stat. 1784-1788 as amended (21 U.S.C. 321(s), 348); 21 CFR 5.10 and 5.61.

2. Section 178.1010 is amended by adding new paragraphs (b)(38) and (c)(33) to read as follows:

§ 178.1010 Sanitizing solutions.

(b) * * *

(38) An aqueous solution containing hydrogen peroxide (CAS Reg. No. 7722-84-1); peroxyacetic acid (CAS Reg. No. 79-21-0); acetic acid (CAS Reg. No. 64-19-7); sulfuric acid (CAS Reg. No. 7664-93-9); and 2,6-pyridinedicarboxylic acid (CAS Reg. No. 499-83-2). In addition to use on food-processing equipment and utensils, this solution may be used on dairy-processing equipment.

(c) * * *

(33) Solutions identified in paragraph (b)(38) of this section shall provide when ready for use not less than 300 parts per million and not more than 465 parts per million of hydrogen peroxide; not less than 200 parts per million and not more than 315 parts per million of peroxyacetic acid; not less than 200 parts per million and not more than 340 parts per million of acetic acid; not less than 10 parts per million and not more than 20 parts per million of sulfuric acid; and not less than 0.75 parts per million and not more than 1.2 parts per million of 2,6-pyridinedicarboxylic acid.

Dated: May 15, 1989.

Richard J. Ronk,

Acting Director, Center for Food Safety and Applied Nutrition.

[FR Doc. 89-12155 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

21 CFR Part 558

New Animal Drugs for Use in Animal Feeds; Lincomycin and Salinomycin

AGENCY: Food and Drug Administration.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the animal drug regulations to reflect approval of a new animal drug application (NADA) filed by A.H. Robins Co., providing for use of currently approved lincomycin and salinomycin Type A medicated articles to make Type C medicated feed for broiler chickens. The feed is indicated for use for the prevention of coccidiosis and for improved feed efficiency.

EFFECTIVE DATE: May 22, 1989.

FOR FURTHER INFORMATION CONTACT: Lonnie W. Luther, Center for Veterinary Medicine (HFV-128), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4317.

SUPPLEMENTARY INFORMATION: A.H. Robins Co., 1405 Cummings Drive, P.O. Box 26609, Richmond, VA 23261, filed NADA 137-537 providing for combining

separately approved lincomycin and salinomycin Type A medicated articles to make Type C medicated feed for broiler chickens. The Type C medicated feed contains: salinomycin sodium, 40 to 60 grams per ton; and lincomycin, 2 to 4 grams per ton. The feed is indicated for the prevention of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. maxima*, *E. brunetti*, and *E. mivati*, and for improved feed efficiency. The NADA is approved and the regulations are amended in 21 CFR 558.325 by adding new paragraph (c)(3)(xv) and in 21 CFR 558.550 by adding new paragraph (b)(3)(xiii). The basis for approval is discussed in the freedom of information summary.

Salinomycin and lincomycin are new animal drugs used in Type A medicated articles to make Type C medicated feeds. Salinomycin is a Category I drug and lincomycin is a Category II drug. Therefore, in accordance with 21 CFR 558.4(e), an approved FDA 1900 is required for making a Type C medicated feed containing the combination of salinomycin and lincomycin as provided for in the approved NADA and 21 CFR 558.550, as amended.

In accordance with the freedom of information provisions of Part 20 (21 CFR Part 20) and § 514.11(e)(2)(ii) (21 CFR 514.11(e)(2)(ii)), a summary of safety and effectiveness data and information submitted to support approval of this application may be seen in the Dockets Management Branch (HFA-305), Food and Drug Administration, Room 4-62, 5600 Fishers Lane, Rockville, MD 20857, from 9 a.m. to 4 p.m., Monday through Friday.

The agency has determined under 21 CFR 25.24(d)(1)(ii) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

List of Subjects in 21 CFR Part 558

Animal drugs, Animal feeds.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Center for Veterinary Medicine, Part 558 is amended as follows:

PART 558—NEW ANIMAL DRUGS FOR USE IN ANIMAL FEEDS

1. The authority citation for 21 CFR Part 558 continues to read as follows:

Authority: Sec. 512, 82 Stat. 343-351 (21 U.S.C. 360b); 21 CFR 5.10 and 5.83.

2. Section 558.325 is amended by adding new paragraph (c)(3)(xv) to read as follows:

§ 558.325 Lincomycin.

* * * * *

(c) * * *

(3) * * *

(xv) Salinomycin in accordance with § 558.550.

* * * * *

3. Section 558.550 is amended by adding new paragraph (b)(1)(xiii) to read as follows:

§ 558.550 Salinomycin.

* * * * *

(b) * * *

(1) * * *

(xiii)(a) Amount per ton. Salinomycin 40 to 60 grams and lincomycin 2 to 4 grams.

(b) Indications for use. For the prevention of coccidiosis caused by *Eimeria tenella*, *E. necatrix*, *E. acervulina*, *E. maxima*, *E. brunetti*, and *E. mivati* and for improved feed efficiency.

(c) Limitations. Feed continuously as sole ration. Not approved for use with pellet binders. Do not feed to layers. Do not allow horses, adult turkeys, guinea pigs, rabbits, hamsters, or ruminants access to this feed. Ingestion by these species may result in severe gastrointestinal effects or may be fatal. Lincomycin hydrochloride monohydrate as provided by No. 000009 in § 510.600(c) of this chapter.

* * * * *

Dated: May 15, 1989.

Gerald B. Guest,

Director, Center for Veterinary Medicine.

[FR Doc. 89-12154 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Parts 100 and 165

[CGD 89-041]

Safety and Security Zones

AGENCY: Coast Guard, DOT.

ACTION: Notice of temporary rules issued.

SUMMARY: This document gives notice of temporary safety zones, security zones, and local regulations. Periodically the Coast Guard must issue safety zones, security zones, and special local regulations for limited periods of time in limited areas. Safety zones are established around areas where there has been a marine casualty or when a vessel carrying a particularly hazardous cargo is transiting a restricted or congested area. Special local regulations are issued to assure the safety of participants and spectators of regattas and other marine events.

DATES: The following list includes safety zones, security zones, and special local regulations that were established between January 1, 1989 and March 31, 1989 and have since been terminated. Also included are several zones established earlier but inadvertently omitted from the past published list.

ADDRESS: The complete text of any temporary regulation may be examined at, and is available on request from, Executive Secretary, Marine Safety Council (G-LRA-2), U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001.

FOR FURTHER INFORMATION CONTACT:

Mr. Bruce Novak, Executive Secretary, Marine Safety Council at (202) 267-1477.

SUPPLEMENTARY INFORMATION: The local Captain of the Port must be immediately responsive to the safety needs of the waters within his jurisdiction; therefore, he has been delegated the authority to issue these regulations. Since events and emergencies usually take place without advance notice or warning, timely publication of notice in the **Federal Register** is often precluded. However, the affected public is informed through Local Notices to Mariners, press releases, and other means. Moreover, actual notification is frequently provided by Coast Guard patrol vessels enforcing the restrictions imposed in the zone to keep the public informed of the regulatory activity. Because mariners are notified by Coast Guard officials on scene prior to enforcement action, **Federal Register** notice is not required to place the special local regulation, security zone, or safety zone in effect. However, the Coast Guard, by law, must publish in the **Federal Register** notice of substantive rules adopted. To discharge this legal obligation without imposing undue expense on the public, the Coast Guard publishes a periodic list of these temporary local regulations, security zones, and safety zones. Permanent safety zones are not included in this list. Permanent zones are published in their entirety in the **Federal Register** just as any other rulemaking. Temporary zones are also published in their entirety if sufficient time is available to do so before they are placed in effect or terminated.

Non-major safety zones, special local regulations, and security zones have been exempted from review under E.O. 12291 because of their emergency nature and temporary effectiveness.

The following regulations were placed in effect temporarily during the period January 1, 1989 through March 31, 1989 unless otherwise indicated.

Docket Number	Location	Type	Date
1-89-001	Eastchester Creek, Huetcheson River, Mt. Vernon, NY	Safety Zone	4 Jan. 89
1-89-002	New York Harbor, New York, NY	Security Zone	13 Jan. 89
1-89-003	New York Harbor, New York, NY	Safety Zone	13 Jan. 89
COTP Philadelphia, PA; Reg. 89-001	Delaware River and Christina River	Safety Zone	26 Jan. 89
COTP Philadelphia, PA; Reg. 89-02	Christina River	Safety Zone	8 Feb. 89
COTP Portland, ME; Reg. 89-01	Walkers Point, Kennebunkport, ME	Security Zone	10 Feb. 89
7-88-47	St. Mary's River Entrance and Cumberland Sound, GA	Safety Zone	1 Jan. 89
COTP Tampa, FL; Reg. 89-007	Seddon Channel and Hillsborough River to the University of Tampa, Tampa, FL	Safety Zone	25 Mar. 89
COTP Tampa, FL; Reg. 89-008	Caloosahatchee River, Cape Coral, FL	Safety Zone	11 Mar. 89
COTP Mobile, AL; Reg. 89-01	Waters of Pensacola Bay encompassing 50 mile radius from center of Channel under Pensacola Bay Bridge, Pensacola, FL	Safety Zone	14 Jan. 89
COTP Mobile, AL; Reg. 89-02	Waters of Mobile River extending 200 feet from dockside at Alabama State Docks, Mobile, AL	Security Zone	18 Jan. 89
COTP Houston, TX; Reg. 89-08	Houston Ship Channel, from Buoy 73 to Buoy 78	Safety Zone	7 Sept. 89
COTP C. Christi, TX; Reg. 89-10	Gulf Intracoastal Waterway and Corpus Christi Ship Channel	Safety Zone	15 Oct. 89
COTP Port Arthur, TX; Reg. 89-01	Gulf Intracoastal Waterway between Mile 245 and Mile 246	Safety Zone	15 Jan. 89
COTP San Diego, CA; Reg. 89-01	San Diego Bay, CA, Pacific Ocean	Safety Zone	5 Jan. 89
COTP San Diego, CA; Reg. 89-02	San Diego Bay, CA, Pacific Ocean	Safety Zone	11 Jan. 89
COTP San Diego, CA; Reg. 89-03	Coronado Roads, San Diego, CA, Pacific Ocean	Safety Zone	18 Jan. 89

Docket Number	Location	Type	Date
COTP LA/LB, CA; Reg. 89-03	Ports of LA/LB, CA	Safety Zone	28 Feb. 89
COTP Honolulu, HI; Reg. 89-01	Mamala Bay, Oahu, HI	Safety Zone	6 Mar. 89

Date: May 16, 1989.

Bruce P. Novak,

Executive Secretary, Marine Safety Council.

[FR Doc. 89-12135 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[SW-FRL-3573-9]

Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Final Exclusions

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA or Agency) today is granting final exclusions from the lists of hazardous wastes contained in 40 CFR 261.31 and 261.32 for specified wastes to be generated by Bethlehem Steel Corporation, Steelton, Pennsylvania, and Johnstown, Pennsylvania. These actions respond to delisting petitions submitted under 40 CFR 260.20, which allows any person to petition the Administrator to modify or revoke any provision of Parts 260 through 268, 124, 270, and 271 of Title 40 of the Code of Federal Regulations, and under 40 CFR 260.22, which specifically provides generators the opportunity to petition the Administrator to exclude a waste on a "generator-specific" basis from the hazardous waste lists.

EFFECTIVE DATE: May 22, 1989.

ADDRESSES: The public docket for this final rule is located at the U.S. Environmental Protection Agency, 401 M Street, SW., Room M-2427, Washington, DC 20460, and is available for viewing from 9:00 to 4:00 p.m., Monday through Friday, excluding Federal holidays. Call (202) 475-9327 for appointments. The reference number for this docket is "F-89-BSEF-FFFFF." The public may copy material from any regulatory docket at a cost of \$0.15 per page.

FOR FURTHER INFORMATION CONTACT:

For general information, contact the RCRA Hotline, toll free at (800) 424-9346, or at (202) 382-3000. For technical information concerning this notice, contact Linda Cessar, Office of Solid Waste (OS-343), U.S. Environmental

Protection Agency, 401 M Street, SW., Washington, DC 20460, (202) 475-9828.

SUPPLEMENTARY INFORMATION:

I. Background

A. Authority

Under 40 CFR 260.20 and 260.22, facilities may petition the Agency to remove their wastes from hazardous waste control by excluding them from the lists of hazardous wastes contained at 40 CFR 261.31 and 261.32. Petitioners must provide sufficient information to EPA to allow the Agency to determine that: (1) The waste to be excluded is not hazardous based upon the criteria for which it was listed, and (2) that no other hazardous constituents are present in the waste at levels of regulatory concern.

B. History of this Rulemaking

Bethlehem Steel Corporation (Bethlehem), located in Steelton, Pennsylvania, and Johnstown, Pennsylvania, petitioned the Agency to exclude from hazardous waste control a specific waste it intends to generate. After evaluating the two petitions, on June 23, 1988, EPA proposed to exclude Bethlehem's wastes from the lists of hazardous waste under 40 CFR 261.31 and 261.32, conditional upon Bethlehem meeting certain sampling, analysis, and reporting requirements. See 53 FR 23661.

Bethlehem petitioned the Agency for an "upfront" exclusion. A petitioner requests an upfront exclusion for wastes that have not yet been generated or that will be subject to further treatment. When treatment is planned an upfront delisting petition requests that an exclusion be granted based on untreated waste characteristics, pilot-scale treatment data if available, and process descriptions. As a condition of an upfront exclusion, the Agency may impose batch testing requirements, which often include analytical testing of representative samples obtained from the full-scale system. These data can be used to verify that the treatment system, once on-line, is operating as described in the petition. The Agency may also specify verification testing limitations (i.e., the maximum allowable levels of hazardous constituents of concern in the waste) in the conditions of the granted exclusion. When the actual levels of the constituents of concern are below these levels, the waste will not be considered hazardous. If the actual levels of the

constituents are above these levels, the waste is still considered to be hazardous and must be retreated or disposed in accordance with RCRA Subtitle C requirements.

This rulemaking addresses public comments received on the proposal and finalizes the proposed exclusions.

II. Disposition of Petitions

Bethlehem Steel Corporation, Steelton, Pennsylvania, and Bethlehem Steel Corporation, Johnstown, Pennsylvania

1. Proposed Exclusions

Bethlehem petitioned the Agency for an upfront exclusion of its chemically stabilized electric arc furnace dust (CSEAFD), presently listed as EPA Hazardous Waste No. K061. Bethlehem's petitions were based on the claim that the constituents of concern, although present in the waste, were in an essentially immobile form (i.e., cement-like). Furthermore, to support its claim that both the non-listed and listed constituents of concern would not be present in the CSEAFD above health-based levels of concern, Bethlehem submitted results from total constituent, EP toxicity, and multiple extraction procedure (MEP) analyses (used to assess stabilized wastes) for all the EP toxic metals, nickel and cyanide. These analyses were performed on representative samples of both the uncured (i.e., paste) CSEAFD, and the fully-cured (i.e., hardened) CSEAFD generated using a laboratory-scale treatment system.

The Agency evaluated the information and analytical data provided by Bethlehem for its untreated electric arc furnace dust and uncured CSEAFD and fully-cured CSEAFD generated from a laboratory-scale waste treatment process and determined that the hazardous constituents found in the waste would not pose a threat to human health and the environment. Specifically, the Agency used its vertical and horizontal spread (VHS) model to predict the potential mobility of the hazardous constituents in the petitioned waste. Based on this evaluation, the Agency determined that the constituents in Bethlehem's waste would not leach and migrate at concentrations above the health-based levels used in delisting decision-making. Since Bethlehem's petitions were based on laboratory-

scale waste treatment systems, the Agency further used the VHS model to establish concentration levels (*i.e.*, delisting levels) for the hazardous constituents in the waste to be generated from the full-scale waste treatment process. The proposed exclusions set maximum constituent concentration levels permissible in the CSEAFD generated from the full-scale waste treatment process and established testing conditions to verify that the levels of hazardous constituents in the petitioned waste do not exceed permissible levels. The verification testing conditions attached to the exclusions are designed to ensure that these constituents will not be present in both the uncured and fully-cured CSEAFD at concentrations above the health-based levels used in delisting decision-making. See 53 FR 23661, June 23, 1988, for a detailed explanation of EPA's proposal to grant Bethlehem's petitions.

2. Agency Response to Public Comments

The Agency received public comments on the proposed rule from five commenters. Two of the five commenters supported the Agency's proposed decision to exclude both the uncured CSEAFD and the fully-cured CSEAFD, while the other three commenters opposed the Agency's decision. The technical corrections and suggested modifications to the proposed rule made by one of the two supporting commenters and the objections raised by the three opposing commenters are discussed below.

Corrections and Clarifications to the Rulemaking Record

One commenter wished to clarify the rulemaking record. The commenter noted that the Agency, using information contained in Bethlehem's petitions, stated in the preamble for the proposed rule that Bethlehem's Steelton facility produces reinforcing bars, billets, and associated rail products, and that Bethlehem's Johnstown facility produces reinforcing bars, rods and wire (see 53 FR 23663, June 23, 1988 and 53 FR 23666, June 23, 1988, respectively). The commenter stated that the principal products produced at the Steelton facility actually are: (1) Rails and associated rail products, (2) blooms for rolling into structural shapes at the facility, and (3) other semi-finished blooms and billets. Additionally, the commenter stated that the Steelton facility has not manufactured reinforcing bars since February 1986, and the facility has not produced steel for such bars, which have relatively low grade metallurgical specifications, since

late 1985. The commenter also stated that the Johnstown facility has never produced reinforcing bars and that the principal products produced at the facility actually are carbon and alloy bars, rods, wire, and semi-finished billets.

The commenter also wished to correct several typographical errors made in Table 1, Table 3, and Table 4 of the June 23, 1988 proposal (see 53 FR 23664-23665). The commenter correctly pointed out that the maximum total constituent concentrations for selenium and nickel were transposed in Table 1. Data contained in Bethlehem's petition indicated maximum total constituent concentrations for selenium and nickel as non-detectable when using a detection limit of 10 mg/kg and 200 mg/kg, respectively. Data presented for selenium and nickel in Table 3 also were inadvertently transposed. Data contained in Bethlehem's petition indicated maximum multiple extraction procedure (MEP) concentrations for selenium and nickel as non-detectable when using a detection limit of 0.01 mg/l and 0.02 mg/l, respectively. As the commenter pointed out, the transposition of the selenium data resulted in the Agency's incorrect evaluation of selenium using the VHS model (see Table 4, 53 FR 23665). Because the maximum MPE concentration for selenium was mistakenly presented as 0.02 mg/l, the Agency evaluated this value using the VHS model. However, as stated in the preamble, the Agency believes that it is inappropriate to evaluate non-detectable concentrations of constituents of concern (*i.e.*, selenium) in its modeling efforts if the non-detectable value was obtained using the appropriate analytical method (see 53 FR 23665). Therefore, the Agency should not have included selenium on Table 4, 53 FR 23665.

The commenter also stated that the Agency significantly understated the number of uncured and fully-cured CSEAFD samples that were tested for the EP toxicity leachate concentrations of cadmium, chromium, and lead. The commenter correctly pointed out that the Steelton petition contained data from the EP toxicity leachate test on cadmium, chromium, and lead from 37 samples of the uncured CSEAFD and 27 samples of the fully-cured CSEAFD. The commenter also correctly pointed out that the Johnstown petition contained data from the EP toxicity leachate test on cadmium, chromium, and lead from 21 samples of the uncured CSEAFD and 38 samples of the fully-cured CSEAFD. The Agency did evaluate these data;

however, the Agency inaccurately summarized all the data contained in the petitions and the numerous additional analytical reports submitted by Bethlehem.

Petition-Specific Comments

Two commenters opposed the Agency's handling of information on Bethlehem's stabilization process as proprietary. Both commenters believed that without specific details concerning Bethlehem's stabilization process and the physical/chemical composition of the stabilized waste, their ability to provide "meaningful" public comment was seriously restricted.

The Agency disagrees with the commenters. As specified in 40 CFR 260.2(b), Bethlehem is entitled to assert a claim of business confidentiality covering part or all of the information submitted to EPA in fulfillment of the information requirements of §§ 260.20 and 260.22. Furthermore, Bethlehem followed the procedures set forth in 40 CFR 2.203(b) pertaining to confidential business information. Bethlehem provided the Agency with confidential information detailing the stabilization process. Substantial resources have been invested to develop the stabilization process, and Bethlehem is entitled to protect this information in order to license its process and to maintain commercial viability. Furthermore, Bethlehem did not seek to protect as confidential any waste-specific information. Data characterizing the physical and chemical composition of the untreated waste, the uncured CSEAFD, and the fully-cured CSEAFD were provided in the exclusion petitions. The Agency evaluated all information submitted. Information that was not claimed to be confidential is available in the RCRA public docket for public inspection.

One of the two commenters also believed that Bethlehem, by asserting a claim of business confidentiality, would be able to secretly amend its treatment process through a simple series of correspondence with the Agency. The commenter claimed that Bethlehem could alter its treatment process without the public's knowledge, since the public would not know the specifics of Bethlehem's treatment process. The commenter further believed that allowing Bethlehem to alter its treatment process would be inconsistent with past delistings that have been granted, which have tied the decision to delist the waste to use of the precise treatment process outlined in the petition.

The Agency strongly disagrees with the commenter's claim that Bethlehem

would be able to "secretly" amend its treatment process through a simple series of correspondence. The Agency explicitly stated in the proposed rulemaking (53 FR 23666 and 23670), that if made final, the proposed exclusions will only apply to the processes and volumes covered by the original demonstration; therefore, if Bethlehem significantly alters either its manufacturing or treatment processes, a new exclusion will be required. In this event, the Agency would require Bethlehem to handle its waste as hazardous until a new exclusion were granted. The Agency, regardless of whether a petitioner's process is covered by a claim of business confidentiality, prohibits any petitioner from altering either its manufacturing or treatment processes because waste generated from an altered process (or processes) potentially would no longer exhibit the same characteristics as the waste upon which the petitioner's original demonstration was based.

One commenter stated that it strongly opposed the Agency's proposal to grant Bethlehem an exclusion for six reasons, each of which is discussed below. A seventh concern, regarding the initial and subsequent testing requirements is addressed in a later section—*Conditional Testing and Reporting Requirements*.

The commenter stated that the CSEAFD (both uncured and fully-cured) still exhibits one of the criteria for which it was listed—the presence of significant concentrations of the inorganic constituents of concern (*i.e.*, cadmium, chromium, and lead). The commenter also stated that the waste contains significant concentrations of nickel.

The Agency agrees that the presence in K061 wastes of significant total concentrations of the inorganic constituents of concern was one of the criteria for listing K061 wastes as "T" (toxic) wastes. See 40 CFR 261.11(a)(3)(ii) and "Background Document, Resource Conservation and Recovery Act, Subtitle C, Hazardous Waste Management, section 3001, Identification and Listing of Hazardous Waste," 1980. The Agency, however, believes that data presented in the Background Document characterize the physical/chemical nature of untreated electric arc furnace dusts and that these data are not representative of the physical/chemical nature of stabilized electric arc furnace dust having a cement-like waste matrix.

Specifically, EPA believes it is reasonable to expect that, as the total constituent concentration of an unbound or loosely bound metal present in a waste increases, the potential for the

metal to leach from the waste also increases (generally, the higher the total constituent concentration of an unbound or loosely bound metal, the higher the potential EP leachate concentration). Thus, wastes having significant total constituent concentration of unbound or loosely bound metals are more likely to impact the underlying ground water than wastes having lower total constituent concentrations of unbound or loosely bound metals. In this case, however, the metals in Bethlehem's waste are tightly bound within the waste's cement-like matrix. Thus, the Agency believes that the elevated levels of the metals present in Bethlehem's waste should not pose a threat to either human health or the environment. The Agency's conclusion that the inorganic constituents of concern (including nickel) are bound in the waste matrix and thus are not available for leaching is supported by the results of the EP and MEP leachate analyses.

EPA evaluated the potential mobility of Bethlehem's stabilized waste using the maximum EP or MEP leachate concentrations and the vertical and horizontal spread (VHS) model. For the average annual volume of waste estimated to be generated by Bethlehem, the VHS model predicted a dilution factor of approximately 6.3. The Agency believes that the VHS model analysis provides a conservative and reasonable worst-case evaluation of the waste's effect on the underlying aquifer. The predicted compliance-point concentrations resulting from this conservative analysis were below the levels of concern used for delisting purposes. See 53 FR 23664 and 23668, June 23, 1988, for descriptions of the modeling analysis of Bethlehem's wastes.

Furthermore, in delisting evaluations, EPA considers all the factors for which the waste was listed, as well as factors other than those for which the waste was originally listed that could cause the waste to be hazardous. See 42 U.S.C. § 6921(f). For this specific wastestream, based on the above discussion, EPA does not believe that any other factors, including elevated total concentrations of the inorganic constituents of concern and nickel, could cause this wastestream to present a hazard to human health and the environment.

The commenter also asserted that the Agency only considered the leachable levels of hazardous constituents and did not consider airborne and waterborne dispersal of the waste.

With regard to possible airborne dispersal, the Agency believes that the commenter's concern was based primarily on the characterization of

K061 wastes in the listing background document as being fine particles of dust. The Agency believes that airborne exposure to hazardous contaminants from Bethlehem's EAF dust (fine particles) is not probable because Bethlehem's untreated EAF dust will be regulated as a hazardous waste, thus releases of the EAF dust to the atmosphere should be controlled. Additionally, due to the physical and chemical nature of Bethlehem's stabilized waste (*i.e.*, monolithic and nonfriable), the Agency believes that direct contact from airborne exposure to hazardous contaminants from the CSEAFD is unlikely.

With regard to waterborne dispersal of the waste, it is important to note that Bethlehem's waste will be stabilized to produce a cement-like waste matrix and handled as hazardous until it is stabilized. The VHS model analysis described in the proposal shows that leachate from the waste that travels through ground water will not exceed health based levels.

The Agency acknowledges that it may also be possible for surface water runoff to transport contaminants from the waste to a nearby surface water body. However, the Agency does not believe that analysis of such overland transport of contaminants as a reasonable exposure route for the petitioned waste would compel a different result for this petition. First, as described in the proposed rule, the Agency believes that landfill disposal is a reasonable worst-case management scenario for Bethlehem's solidified waste. Contamination of surface water might occur, therefore, through runoff from the petitioned waste. However, EPA believes that the concentrations of my hazardous constituents in that runoff will tend to be lower than the levels in the EP leachate analyses reported in the proposal due to the acidic medium of the EP test. Furthermore, any transported constituents would be further diluted in the surface water body.

Secondly, the Agency believes that, in general, the leachate derived from this waste will not directly enter a surface water body without first travelling through the saturated (subsurface) zone where dilution and attenuation of hazardous constituents may occur. The VHS model takes this saturated zone into account as it predicts the ultimate fate and transport of hazardous constituents. Lastly, if the wastes were exposed to any long-term weathering, the Agency believes that any significant overland transport of hazardous constituents through erosion and runoff

is highly unlikely for solidified (cement-like) wastes such as Bethlehem's.

The commenter further asserted that the at-the-well contribution of cadmium, chromium, and lead from Bethlehem's waste alone would be anywhere from just under a third to over a half of the amount allowed in drinking water under the current standards for these contaminants (*i.e.*, the predicted compliance-point concentrations (CPCs) for cadmium, chromium, and lead are very close to their respective regulatory standards). The commenter, therefore, stated that disposing of this waste with any other contaminant source within the same landfill would readily cause exceedences of the standards.

As the Agency discussed in the *Federal Register* on February 26, 1985 and November 13, 1986 (50 FR 7900 and 51 FR 41085), the VHS model analysis assumes that there are no other potential contaminant sources at the disposal site (*i.e.*, leachate from the waste mixes with non-contaminated ground water). Additionally, without specifying management conditions or considering site-specific characteristics, the Agency cannot modify the VHS model to assess the effects of additional contaminant sources on the underlying aquifer within the same disposal site. The commenter is inferring that wastes should not be delisted unless the predicted at-the-well concentrations of the contaminants are significantly less than their respective health-based levels. The Agency does not have any technical basis to support a determination of an appropriate percentage reduction and believes that any resulting percentage reduction would be arbitrary. Furthermore, the commenter did not suggest any technical basis for such a reduction. However, in light of the conservative nature of the VHS model, EPA believes that the current approach is sufficiently protective of human health and the environment. EPA will continue to delist wastes that exhibit VHS-calculated CPC's up to 100 percent of the health-based standard.

The commenter was further troubled by the CPC for lead since EPA is considering lowering the drinking water standard for lead to a maximum of 0.02 mg/l and more likely to 0.01 mg/l or 0.005 mg/l. The commenter believes that the waste should be considered hazardous since, if the 0.01 mg/l standard is adopted, the calculated CPC would significantly exceed the standard.

In making delisting decisions, the Agency uses the existing health-based levels cited in "Docket Report on Health-Based Levels and Solubilities Used in the Evaluation of Delisting

Petitions," June 8, 1988 (located in the RCRA public docket). EPA has no way of predicting the final drinking water standard until it is actually promulgated (the standard could be less than or greater than the proposed level or the 0.01 mg/l level cited by the commenter). Neither can the Agency be certain exactly when the new standard might be promulgated. Without a new final drinking water standard, the Agency does not believe it is fair to the petitioner to postpone a final delisting decision until a new drinking water standard for lead is promulgated.

Lastly, the commenter believed that the Agency did not consider the possibility of dioxin contamination. The commenter based its concern on data obtained through the Agency's National Dioxin Study, Tier 4 Combustion Report. See "National Dioxin Study Tier 4 Combustion Sources: Engineering Analysis Report," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-450/4-84-014h, September, 1987.

The Agency disagrees with the commenter. EPA evaluated Bethlehem's petition and did not believe that any other hazardous constituents, including dioxins, were present in Bethlehem's waste. In response to the commenter's specific concern regarding the possibility of dioxin contamination, EPA reviewed the Tier 4 report cited by the commenter. Although data presented in the Tier 4 report indicated that dioxins were present in wastes generated by secondary copper smelters and wire reclamation incinerators, the Agency does not consider it likely for dioxins to be present in Bethlehem's waste. As discussed in the Tier 4 report, the principal reasons for the possible presence of dioxins in wastes generated by secondary copper smelters and wire reclamation incinerators are the presence of dioxin-forming precursors in raw materials and low combustion temperatures.

Specifically, the report noted that secondary copper smelters' raw materials can contain quantities of polyvinyl chloride wire insulation (*e.g.*, telephone wire), electrical parts, and other sources of copper (including circuit boards and electrical switches). Wire reclamation incinerators can process polyvinyl chloride wire insulation and polychlorinated biphenyl (PCB)—containing transformer cores and parts. These types of raw materials contain dioxin-forming precursors.

The report also found that combustion temperatures maintained by both secondary copper smelters and wire reclamation incinerators are low enough

to promote the formation of dioxins. Surveyed secondary copper smelting furnaces operated at approximately 1,500 °F, and wire reclamation incinerators operated at approximately 1,000 °F (some had afterburners operating at 1,900 °F).

The Agency reviewed the list of scrap materials Bethlehem reported it uses to charge its furnaces, and the Agency does not believe that Bethlehem uses wire or electronic scrap. The Tier 4 report states that secondary copper smelters and wire reclamation incinerators are less likely to generate dioxin-containing wastes if they do not use polyvinyl chloride coated wire and low combustion temperatures. Additionally, the Tier 4 report stated that dioxins generally are destroyed at temperatures above 800 °C (1472 °F), especially in incinerators with residence times of 1.5–2.0 seconds or more. Bethlehem's furnaces heat the molten steel to 3,000 °F. Therefore, Bethlehem's furnaces run at more than two times the temperature required to destroy polychlorinated dibenzo-p-dioxins (PCDDs), PCBs, and polychlorinated dibenzofurans (PCDFs). EPA, based on the above discussion, does not believe that it is reasonable to expect dioxins to be present in Bethlehem's waste.

The other two commenters opposed the Agency's proposal to grant Bethlehem an exclusion because they believed that Bethlehem's process cannot work, that the process incorporates unnecessary dilution, and that the Agency has allowed Bethlehem to use unnecessary dilution.

The Agency disagrees with the commenters for the following reasons. The Agency evaluated Bethlehem's treatment process and results from total constituent and EP leachate analyses, and believes that Bethlehem's stabilization process effectively immobilizes all of the EP toxic metals, nickel, and cyanide as described earlier. Furthermore, the Agency believes that Bethlehem's process does not employ unnecessary dilution in order to meet the delisting levels. Table 1 presents a comparison of both the total constituent concentrations of lead, cadmium, and chromium and the EP leachate concentrations of lead, cadmium, and chromium in the untreated and treated electric arc furnace dust, respectively. As evidenced by Table 1, the pilot-scale stabilization process is reducing the mobility of these metals by significantly more than the two to three times reduction attributable to dilution through the addition of reagents.

TABLE 1.—COMPARISON OF THE TOTAL AND EP LEACHATE CONCENTRATIONS OF LEAD, CADMIUM, AND CHROMIUM IN THE UNTREATED EAF DUST WITH THE TREATED EAF DUST

	Steelton		
	Untreated EAFD (total concentration (mg/kg))	Treated EAFD (total concentration (mg/kg))	Ratio (untreated: treated)
Constituents:			
Lead	38,000	12,000	3.16:1
Cadmium	591	265	3.00:1
Chromium	1,100	900	1.22:1
	EP concentration (mg/l)	EP concentration (mg/l)	
Lead	139	0.1	1,390:1
Cadmium	1.7	0.03	57:1
Chromium	0.93	0.16	6:1
	Johnstown		
	Untreated EAFD (total concentration (mg/kg))	Treated EAFD (total concentration (mg/kg))	Ratio (untreated: treated)
Constituents:			
Lead	20,000	7,000	2.85:1
Cadmium	300	200	1.50:1
Chromium	2,400	1,200	2.00:1
	EP concentration (mg/l)	EP concentration (mg/l)	
Lead	110	0.15	733:1.0
Cadmium	3.6	0.04	90:1.0
Chromium	0.05	0.18	1:3.6

EPA notes that, as one of the commenters pointed out, for the Johnstown facility, the EP leachate concentration of chromium in the CSEAFD appears to be higher than the EP leachate concentration of chromium in the untreated EAF dust. The Agency, when tabulating the data contained in Bethlehem's petition, took the maximum values detected in all samples. As a result, the sample of untreated EAF dust, which yielded the highest EP leachate concentration (e.g., chromium), was not the same sample that was treated and then analyzed for EP leachate concentrations. Therefore, direct comparison of the EP leachate concentrations of chromium in the untreated EAF dust and treated EAF dust results in the misleading appearance that Bethlehem's treatment process caused the EP leachate concentration of chromium to increase. The Agency reviewed the reagents used in Bethlehem's CSEAFD process and does not believe that the reagents supply additional chromium.

The commenter believed that Bethlehem's stabilization process utilized a greater quantity of reagent than needed and that other stabilization processes were capable of reducing leachable levels of the metals of concern without large volume increases as incurred by Bethlehem's process. The

commenter stated that the Agency should adjust the leachate concentrations from the treated wastes to account for the "unnecessary" dilution it believes that Bethlehem's process uses. The commenter further suggested that the leachate concentrations from the treated wastes should be adjusted by multiplying the leachate concentrations by the increase in volume from the untreated waste to the treated waste.

The commenter is correct in stating that other available stabilization processes may utilize a smaller volume of reagents than does Bethlehem's stabilization process. However, based on the Agency's analyses of Bethlehem's stabilization process, the data in Table 1, and the above discussion, EPA does not believe that Bethlehem's process incorporates "unnecessary" dilution since there does not appear to be a disproportionate relationship between the increase in waste volume of the treated waste and the resulting decrease in the constituent concentrations. Therefore, the Agency does not believe it is necessary to adjust the leachate concentrations as specified by the commenter.

Data Collection and Analysis

One commenter questioned five aspects of the data submitted by

Bethlehem in support of these petitions. EPA's response to each of these issues follows.

First, the commenter questioned how the Agency determined from merely four laboratory samples whether Bethlehem's waste was well mixed and uniformly produced. In response, the Agency notes that Bethlehem submitted significantly more than four samples of the CSEAFD, as described in the proposal. As noted in the earlier section on corrections to the rulemaking, the petitioner submitted data for 64 samples for the Steelton facility and 59 samples for the Johnstown facility. Furthermore, the Agency reviewed Bethlehem's manufacturing process, list of products, and types of scrap used to charge the steel making furnaces, and determined both that the raw waste samples (i.e., samples of the unstabilized waste) were representative of the types of steel currently being manufactured by Bethlehem, and that Bethlehem is not a multiple waste generator and/or operator of a multiple waste treatment facility. Lastly, although the CSEAFD was produced in the laboratory, the manufacturing process that generated the waste is fully operational. Therefore, the Agency believes that Bethlehem's waste was well mixed and uniformly produced.

Second, the commenter questioned how the limited laboratory-scale data submitted reflects day-to-day variations in the full-scale manufacturing and treatment processes, performance of equipment, reliability or quality of reagent batches, or other factors, and how the laboratory data support the Agency's conclusion that the full-scale process will consistently generate non-hazardous waste. The Agency, as stated above, believes that the samples were representative of the waste generated by production of the particular grades of steel being produced by Bethlehem at that time. The Agency realizes that data derived from a laboratory-scale treatment process demonstrate only how well the laboratory-scale process works and only provide a general indication of how well the full-scale process will perform. However, as the Agency stated in the preamble, the purpose of the proposed verification testing requirements are to ensure that the full-scale treatment system is capable of rendering the waste non-hazardous. See 53 FR 23662.

Third, the commenter questioned Bethlehem's use of grab samples and stated that grab samples are inconsistent with the recommended practice found in both SW-846 and the "Delisting Guidance Document." The Agency agrees with the commenter that both SW-846 and the "Delisting Guidance Document" recommend, depending on the nature and location of the wastestream, that composite samples, consisting of either full-depth core samples or grab samples collected over time, be collected and analyzed. However, in Bethlehem's case and for the purposes of upfront delistings (where the petitioner is trying to demonstrate that a pilot- or laboratory-scale technology will be successful in treating hazardous wastes), the Agency believes that grab samples are adequate for providing samples of waste for laboratory-scale testing. When the composition of a large volume wastestream remains relatively consistent on a daily basis, the Agency believes that grab samples of this waste, collected at a predetermined frequency, will yield results similar to those obtained from full-depth core samples. While grab samples may not be as "statistically" representative as composite samples, grab samples will be more indicative of possible variations in waste composition for a given period of time.

Fourth, the commenter questioned Bethlehem's selection of samples for analysis and noted that Bethlehem may have been picking the samples that

yielded the best results. As stated above, the Agency inadvertently understated the number of samples Bethlehem collected, treated, and analyzed. Bethlehem conducted EP toxicity tests on a total of 123 uncured and fully-cured samples of CSEAFD collected from both the Steelton and Johnstown facilities over nearly a two-year time period. The Agency notes that this number far exceeds the minimum of four representative samples that petitioners are required to submit.

The Agency has no way to confirm whether a petitioner is providing all the results obtained from every analysis ever performed. However, the petitioner is legally bound by a certification statement to present accurate and representative information/data. The Agency also notes that the petitioner's analytical data are subject to verification by an Agency spot-check sampling and verification visit. In addition, data obtained through laboratory- or pilot-scale operations will be verified using data obtained through the initial verification testing period and subsequent verification testing. The Agency has no reason to believe that Bethlehem selected only its best data for submission.

Fifth and finally, the commenter questioned how the Agency knows that Bethlehem's treatment equipment was properly operated and that the reagent was properly stored to ensure the stated results. The Agency believes that it was in Bethlehem's best interest to ensure that its treatment process was properly operated and that its reagents were properly stored/handled. Had Bethlehem not properly operated its treatment system or properly stored its reagents, the EAF dust may have exhibited higher EP and MEP leachate levels (sufficiently high to fail the VHS model analysis). Thus, the Agency believes that the analytical data characterizing the CSEAFD obtained from Bethlehem's laboratory-scale process are a direct indication that Bethlehem properly operated its treatment system and properly handled its reagents. The Agency has limited the proposed exclusion to cover the specific processes Bethlehem stated it intends to use. As discussed above, if Bethlehem significantly alters its treatment process or operates it in a manner inconsistent with the treatment system and manner of operation reported in the petition, the exclusion will not cover any wastes generated by the altered system.

Conditional Testing and Reporting Requirements

One commenter stated that if the Agency granted Bethlehem an exclusion,

the conditional requirements of the exclusion should include analyses for total concentrations and MEP constituent concentrations of the hazardous constituents.

The Agency disagrees with the commenter. The Agency expects that this waste will be disposed of in a municipal landfill, where soil conditions are likely to be mildly acidic. EPA believes that the EP extraction procedure is the most appropriate analytical tool to evaluate the potential leachability of this waste in an acidic environment. For this waste, EPA believes that continued evaluation of the EP leachable concentrations as required by the conditions of this exclusion will be adequate to protect human health and the environment. Furthermore, the Agency has not developed health-based standards regulating the total constituent concentrations of any of the EP toxic metals or nickel. To require Bethlehem to monitor continually for the total constituent concentrations of all the EP toxic metals and nickel will not ensure further protection of human health or the environment.

The Agency also does not believe it is necessary to require Bethlehem to perform continuous MEP analyses. First, the Agency's belief that the stabilization process is effective is substantiated by the analytical data obtained from the previous MEP leachate tests. Additionally, if the stabilization process is ineffective and an increase in the leachability of the hazardous constituents from the waste were to occur, the Agency believes that the EP leachate analyses would measure such an increase.

One commenter questioned why the Agency is proposing to allow Bethlehem to avoid all process control after merely four consecutive days of operation. The Agency believes that the commenter may have misinterpreted the preamble discussion concerning the termination of the subsequent testing requirements. See 53 FR 23666 and 23669. First, Bethlehem will be required to collect representative samples of every batch of CSEAFD generated during the initial four weeks of full-scale operation. As the Agency discussed in the preamble, four weeks of initial verification testing will be sufficient to determine whether the full-scale treatment system is capable of operating as reported in the petition. Second, the proposed rule stipulated that, after the completion of the initial verification testing period, Bethlehem will continually test the CSEAFD until four consecutive batches meet the delisting levels. The Agency notes that, as a result of other comments received

on the proposals, the subsequent testing conditions have been modified and the termination of testing clauses have been removed. See below for a complete discussion of the other comments and modifications made to the testing and reporting requirements. Furthermore, as in all delistings, the petitioner will be required to operate the treatment process as demonstrated in the petition and determine whether its waste exhibits the characteristics of a hazardous waste (see 40 CFR 262.11).

The commenter also questioned why the Agency was allowing the petitioner 90 days to report the results of the initial daily testing required prior to disposal of the CSEAFD. The commenter believed that the data should be reported immediately. The Agency disagrees with the commenter and believes that it would be an unnecessary burden to require the petitioner to provide the results of the daily analyses on a daily basis. The Agency believes that reporting the data on a 90-day basis is reasonable and does not jeopardize human health and the environment.

The commenter also questioned whether: (1) Bethlehem will report data from tests of batches of CSEAFD that fail the conditional delisting levels; (2) Bethlehem will hold batches of CSEAFD that exceed the delisting levels beyond the 90-day storage limit allowed by RCRA for a hazardous waste; and (3) Bethlehem's treatment process will allow Bethlehem to remove material from the landfill and reprocess CSEAFD that fails to meet conditional delisting levels.

Bethlehem will be required to report all data obtained from the initial testing activities. Additionally, prior to Bethlehem's receipt of the initial verification testing results, Bethlehem must handle the CSEAFD as a hazardous waste. Therefore, prior to analytical confirmation of the waste's meeting the delisting levels, it will be subject to all of the applicable requirements of Subtitle C and thus, Bethlehem will be subject to all applicable RCRA generator and storage requirements. Lastly, due to the nature of the CSEAFD (cement-like), the waste is in a form that facilitates subsequent movement; therefore, Bethlehem would be able to retrieve and/or reprocess the CSEAFD if necessary.

The petitioner, Bethlehem Steel, objected to the Agency's verification testing conditions requiring the company, as part of both the initial testing and subsequent testing requirements, to analyze for the total constituent concentrations of reactive sulfide and reactive cyanide and the EP

leachate concentration of cyanide. Bethlehem believed that the company had submitted sufficient data, which indicated non-detectable levels of reactive cyanide, reactive sulfide, and EP leachate cyanide, to support Bethlehem's contention that these three constituents were not present in either the raw dust or CSEAFD produced at both the Steelton and Johnstown facilities. Bethlehem recommended that the proposed initial testing and subsequent testing requirements to analyze for the total constituent concentrations of reactive sulfide and reactive cyanide and the EP leachate concentration of cyanide be deleted from the final verification testing conditions.

Bethlehem also objected to the Agency's verification testing conditions requiring the company, as part of both the initial testing and subsequent testing requirements, to analyze for the EP leachate concentrations of arsenic, mercury, selenium, silver, and nickel. Bethlehem believed that the company had submitted sufficient data, which indicated non-detectable levels of EP leachate arsenic, mercury, selenium, silver, and nickel, to support Bethlehem's contention that these five constituents are not present at concentrations of concern in the CSEAFD produced at both the Steelton and Johnstown facilities. Bethlehem asserted that the Agency was placing an undue analytical burden on the company by requiring analyses for constituents that the commenter believes are not present at concentrations of concern in the CSEAFD. Bethlehem recommended that the proposed initial testing and subsequent testing requirements to analyze for the EP leachate concentrations of arsenic, mercury, selenium, silver, and nickel be modified. Bethlehem suggested that for the initial testing condition, the frequency of analyses for EP leachate concentrations of arsenic, mercury, selenium, silver, and nickel be reduced from daily to weekly, (i.e., Bethlehem would still collect daily composite samples; however, the daily composite samples would be further mixed to produce one weekly composite sample). Bethlehem also suggested that the subsequent testing condition, with respect to arsenic, mercury, selenium, silver, and nickel be modified to require only four consecutive daily composite samples (i.e., instead of testing every daily composite sample for the EP leachate concentrations of these five metals, Bethlehem would wait until its process is operating correctly and then provide the results of four consecutive daily

composites, thus reducing its total analytical burden).

The Agency does not agree with the petitioner's claim that the verification testing conditions requiring analyses for total constituent concentrations of reactive sulfide and reactive cyanide and EP leachate concentrations of cyanide, arsenic, mercury, selenium, silver, and nickel are unduly burdensome. The Agency, when writing the verification conditions, attempted to limit the analytical burden it was proposing to place on the petitioner while ensuring that only non-hazardous wastes were removed from Subtitle C control. The petitioner submitted data obtained from a laboratory-scale process. The Agency believes it prudent to verify that the treatment residue (in this case, the CSEAFD) generated from the fully operational process actually is non-hazardous with respect to all potential constituents of concern which may reasonably be expected to be found in the CSEAFD. Thus, the Agency believes that the proposed verification testing requirements for the total constituent concentrations of reactive sulfide and reactive cyanide and the EP leachate concentrations of cyanide, arsenic, mercury, selenium, silver, and nickel are necessary and do not place a significant economic or analytical burden on the petitioner. Furthermore, only the initial verification testing (condition (1)(A)) requires analyses for total concentrations of reactive cyanide and reactive sulfide.

Bethlehem submitted information on the percentage of each type of scrap used to charge Bethlehem's furnaces on a month-by-month basis from January 1986 through August 1988. Bethlehem stated that the percentage of each type of scrap charged in any given month varied due to a number of factors, including lack of availability of certain scrap types, changing scrap costs, and changing product metallurgical specifications. As Bethlehem correctly concluded, if the percentage of each different type of scrap metal used by Bethlehem to charge the furnace falls outside of the percent range of each type of scrap metal historically used, Bethlehem would require a new exclusion and would have to handle their waste as hazardous until a new exclusion was granted. Bethlehem believed that it would be overly burdensome to require the company to submit a new petition each time the percentage of each type of scrap used to charge the furnace fell outside the historical range. Bethlehem, therefore, proposed that the company implement a "feed-forward" system to monitor the

effect of any significant change to the scrap charges on the total constituent concentration of lead in the untreated EAF dust and/or EP leachate concentrations of cadmium, chromium, and lead in the CSEAFD.

Specifically, Bethlehem suggested that prior to each month, Bethlehem would review the percentage of high residuals-bearing scrap (*i.e.*, No. 2 heavy melting—regular auto scrap and No. 2 bundles—heavy melting scrap and light melting fragmented auto scrap) that Bethlehem plans to consume in the forthcoming month to determine if the percentage would be significantly greater than historical levels. (Bethlehem claimed that the high residuals-bearing scrap is generally responsible for elevated levels of total lead in the EAF dust.) Bethlehem believed, based on a review of the percentages of each type of scrap used to charge the furnaces, that a planned monthly scrap charge containing more than 27.5 percent high residuals-bearing scrap would be significantly greater than historical levels. Bethlehem further stated, if the 27.5 percent threshold was to be exceeded, Bethlehem then would institute a sampling and testing program that would provide for the collection of representative weekly composite samples of the unstabilized EAF dust (prepared from daily grab samples of the dust) and daily composite samples of the CSEAFD (prepared from grab samples of each batch of CSEAFD produced) during the month in question. Each weekly composite sample of EAF dust would be analyzed for lead. If such dust analyses show that the total constituent concentration of lead had significantly exceeded typical maximum levels (*i.e.*, greater than three percent) during any week, then four of the daily composite CSEAFD samples corresponding to that week (or weeks) would be tested for the EP toxicity concentrations of cadmium, chromium, and lead. Thus, if the EP levels were less than or equal to the delisting levels, the CSEAFD process would be operating correctly and the waste could be considered non-hazardous. If, however, the EP levels exceeded the delisting levels, then Bethlehem would be required either to retreat or to handle the waste according to Subtitle C of RCRA. Following a successful verification (*i.e.*, four consecutive samples meeting the delisting levels), the threshold levels for triggering subsequent verification testing would be raised by 1.0 percent for the high residuals-bearing scrap charge and 0.1 percent for the lead in the unstabilized EAF dust above those levels measured

during the previous verification testing month.

The Agency reviewed the information on the percentage of each type of scrap used to charge Bethlehem's furnaces on a month-by-month basis from January 1986 through August 1988. The total monthly percentage of high residuals-bearing scrap consumed at the Steelton and Johnstown facilities varied from 2.2 percent to 25.2 percent and 1.9 percent to 18 percent, respectively. The Agency also reviewed the information previously submitted by Bethlehem on the percentage of each type of scrap used to charge its furnaces. However, the Agency was unable to directly compare the two sets of data since Bethlehem's previous data were not broken out according to the subcategories of low residuals-bearing and high residuals-bearing. Rather, the data were grouped by the larger categories of heavy melting and light melting scrap. Nevertheless, the Agency believes that the percentage composition of scrap has varied since the submittal of Bethlehem's initial information on the percentage composition of scrap used to charge its furnaces. Additionally, the Agency agrees with the petitioner and believes that the percentage of each type of scrap charged in any given month will continue to vary depending on a number of factors, including lack of availability of certain scrap types, changing scrap costs, and changing product metallurgical specifications.

The Agency also believes that requiring Bethlehem to submit a new petition every time the percentage of each type of scrap used to charge the furnace fell outside the historical range would be an unnecessary use of both the Agency's and Bethlehem's resources. Therefore, the Agency agrees with Bethlehem that the proposed exclusion should be modified in order to accommodate the variation in scrap used to charge the furnaces. However, the Agency does not believe that the Bethlehem's proposed "feed-forward" system is feasible. The specifications of the Institute of Scrap Iron and Steel (ISIS) for grading scrap metal are voluntary guidelines. Therefore, potentially significant variation in the specific type of scrap within a particular category (*e.g.*, heavy melting, #1 bundles, #2 bundles) could occur. As a result, potentially significant variation in constituent concentrations could occur without triggering verification testing (*i.e.*, the concentrations of constituents could increase without initiating the verification testing since the percentage of high residuals-bearing scrap did not

change). Therefore, tracking the percentage of each type of steel scrap, as classified using the ISIS grading system, would not prevent Bethlehem's waste from exhibiting variations in constituent concentrations outside of the range addressed by Bethlehem's petitions.

Therefore, the Agency, in promulgating these final rules, has modified condition (1)(B) to require Bethlehem to collect and analyze weekly composite samples of the treated CSEAFD indefinitely:

(1)(B) Subsequent Testing: Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control data, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by an employee or representative of EPA or the State of Pennsylvania.

The Agency believes that it is necessary to require the petitioner to analyze weekly composites of the CSEAFD in order to ensure that the stabilization process effectively handles any potential variation in constituent concentrations. As stated above, the potential variation in constituent concentrations is a result of the potentially changing composition of the scrap charges. The Agency, however, believes that the composition of the scrap charges will not vary abruptly, *i.e.*, from day-to-day. Rather, the Agency expects that the composition of the scrap charges will change gradually since scrap generally, is not purchased every day. Therefore, the Agency believes that collecting composite samples on a weekly basis will be sufficient to ensure that the stabilization process is able to accommodate the potential changes in constituent concentrations and generate non-hazardous CSEAFD.

The commercial availability of different types of scrap metal are subject to change with time. Therefore, as described above, the Agency believes it is possible that the composition of the untreated EAF dust will vary over time. The Agency stated in the proposed rule, that future upfront delisting proposals and decisions may include different testing requirements based on an evaluation of the uniformity of the waste and that wastes with variable constituent concentrations, including

those discussed in previous delisting decisions (e.g., 51 FR 41323, November 14, 1986), would require continuous batch testing. See 53 FR 23666 and 23669-23670, June 23, 1988. In this case, the Agency believes that the potential variations in waste composition (i.e., constituent concentrations) resulting from changing scrap, warrant the requirement for continual testing of weekly composite samples of CSEAFD. As a result, the Agency removed condition (3) *Termination of Testing* in order to reflect the requirement for continual testing of weekly composite samples of the CSEAFD.

The Agency is requiring the petitioner to compile and store on site, all analytical data obtained through the subsequent testing condition (1)(B). The Agency realized that requiring the petitioner to submit these analytical data every six months would place an undue burden on both the petitioner and EPA. In addition, the Agency may at any time, either visit the facility for inspection purposes or request the petitioner to report these data. Therefore, the Agency is maintaining the same level of protection without requiring the petitioner to report these analytical data every six months. Condition (4) *Data submittals* has been renumbered and now reads:

(3) Data submittals: Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, S.W., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:

"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.

As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."

(Name of Certifying Person)

Date

(Title of Certifying Person)

Certification Statement

The petitioner, Bethlehem Steel, commented that the certification statement proposed for use in the data submittals for both the Steelton and Johnstown conditional exclusions is unnecessarily onerous and one-sided. Bethlehem also believed that the provision by which signatories would "recognize and agree that this exclusion of wastes will be void as if it never had effect" if any of the submitted "information is determined by EPA in its sole discretion to be false, inaccurate or incomplete" is tantamount to violating Bethlehem's right to due process. Bethlehem further asserted that the proposed certification statement is inconsistent with that agreed to by EPA in its settlement agreement with industry petitioners in the consolidated permit regulations litigation (*NRDC v. EPA* 673 F.2d 392 (D.C. Cir. 1980), cert. denied, 495 U.S. 879 (1982)). Bethlehem suggested, at a minimum, the proposed certification language be modified to include the following sentence:

In making the above certification, Bethlehem Steel Corporation does not waive its right to seek judicial review of any action taken by EPA pursuant to 42 USC 6976 or any other applicable provision of law.

Bethlehem recommended, however, that EPA use the previously agreed to and codified certification language (found at 40 CFR 122.22 and 270.11).

The Agency disagrees with Bethlehem's assertion that the proposed certification would effectively violate Bethlehem's right of due process. Although the thrust of Bethlehem's concern is not entirely clear from the comments, apparently Bethlehem believed that EPA's "determination" that a certification had been false, inaccurate or incomplete would be judicially unreviewable. EPA intends no such result. In an appropriate enforcement or other administrative/judicial action under RCRA or CERCLA with respect to wastes disposed of upon reliance on the allegedly void delisting,

Bethlehem would not be precluded from raising as a defense that the certification was, in fact, accurate, (and thus that no improper disposal had occurred). EPA will comport with due process requirements in any administrative determination regarding the status of Bethlehem's delisting. For the same reasons, EPA does not believe it necessary or appropriate to include the sentence suggested by Bethlehem.

EPA also does not agree that it must use the certification language used for NPDES and RCRA permit submissions adopted in settlement of the consolidated permits litigation. First of all, that language was agreed to in settlement of those consolidated cases only. EPA is not bound to follow that agreement with respect to certification language found in any other rulemaking proceeding (including the present delisting). Furthermore, EPA does not believe there is a material difference between the language found at 40 CFR 122.22 and 270.11 and that in the proposed delisting (53 FR 23671). EPA notes that the issue in the consolidated permits litigation was over the previous requirements that the certifying official personally examine and be familiar with all information contained in the permit application being certified. The certification was changed to require only that the official have supervised or directed the preparation of the permit application. See 48 FR 39613, April 1, 1983 for details. The proposed delisting certification also does not require personal examination of the conditional data prepared. The proposed certification instead adds language relevant to the effect on the status of the excluded waste if the information is, in fact, false. Thus, EPA believes that the certification proposed for this delisting and the one found at § 122.22 are substantially the same and is today finalizing the certification as proposed.

EPA's Modeling Approach

Three commenters supported the Agency's use of the VHS model to evaluate Bethlehem's waste; however, one commenter believed that the Agency should not use a "worst-case" scenario when evaluating delisting petitions. The commenter believed that the worst-case scenario should only be used as a first-stage screening tool and that failure resulting from a worst-case "screening" scenario should not be used as a basis for denial, but, rather, the trigger for further evaluation. The commenter also believed that EPA should have the flexibility to investigate the specific waste and site-specific hydrogeological conditions and to issue

a conditional exclusion for disposal of the specific waste at a specific site.

The Agency notes that it proposed to grant (and today finalizes) Bethlehem's petitions utilizing the VHS model and incorporating a worst-case disposal scenario. As explained in the proposed rule, EPA believes that such an approach is appropriate. See 53 FR 23662. Since the commenter's concerns regarding the use of "worst-case" scenarios do not affect the outcome of these petitions, EPA does not address them in detail here. The use of site-specific factors in delisting evaluations is discussed in further detail below.

The same commenter stated that the vertical and horizontal spread (VHS) model is biased against large volume wastes (i.e., 10,000-30,000 tons/year). The commenter believes that large volume wastes are not likely to be disposed of in municipal landfills and that the EP toxicity test, which is based on a municipal landfill scenario, yields concentrations of metals significantly higher than would actually be generated at a disposal facility. The commenter further believes that, because the VHS model does not recognize any attenuation or precipitation of metals and assumes that large volumes of wastes always result in greater concentrations of a constituent in an aquifer, large volume wastes are virtually precluded from delisting.

As the Agency previously stated, it was not the Agency's intention to create a bias against large volumes of hazardous waste. See 50 FR 48907, November 27, 1986. The Agency recognizes, however, that large sources of waste which leach a contaminant at a particular level will have a greater impact on an underlying aquifer than a small amount of waste leaching at the same (or even higher) level. The Agency contends that, as waste volume increases, hazard potential also increase. Thus, the approach is justly weighted against large-volume wastes.

The Agency also disagrees with the commenter's claim that large volumes of waste are virtually precluded from delisting. Specifically, the Agency has recently granted an exclusion for a petitioner generating nearly 16,000 tons/year. See 54 FR 11706, March 22, 1989. Additionally, Bethlehem's Steelton and Johnstown facilities will be producing 57,000 tons/year and 87,900 tons/year, respectively of wastes which are delisted today.

Lastly, the same commenter believed that EPA, due to the large number of analytical data points characterizing the EP and MEP leachate levels for the EP toxic metals, nickel, and cyanide, should have evaluated the 95 percent upper

confidence levels (UCLs) instead of the maximum EP or MEP leachate levels in the VHS model. The commenter further stated that the use of 95 percent UCLs to conservatively evaluate large data bases is consistent with standard statistical practice, as well as EPA policy, found in SW-846, for evaluating wastes/delisting petitions.

The Agency agrees with the commenter that it may be appropriate to use UCLs when statistically evaluating large populations of analytical data. However, in this case, the Agency chose to use maximum EP and MEP leachate levels when evaluating Bethlehem's petitions because the Agency does not believe that a sufficient number of analyses were available for all of the metals in the uncured and cured state. For example, only five samples of uncured wastes were analyzed for EP leachate levels of barium. In any case, EPA notes that the petitioned wastes passed the VHS modeling analysis when the maximum EP/MEP leachate levels were used. The Agency may elect to consider the use of either the average constituent level or UCL when the maximum constituent level is of concern and the sample population is sufficiently large.

A second commenter also supported EPA's proposed use of the VHS model as applied to Bethlehem's petitioned waste, and strongly supported EPA's assertion that "it is inappropriate for the Delisting Program to consider extensive site-specific factors in its evaluation of delisting petitions." See 53 FR 23662. The commenter believed that it is unlawful and inappropriate for EPA to consider any site-specific factors in its evaluation of delisting petitions. This comment does not pertain to this petition nor does it affect the proposed decision since the Agency did not consider any site-specific factors in its evaluation of the petitioned waste. The Agency, therefore, will independently respond to this comment in the context of a separate rulemaking petition raising this issue with the agency (filed by the Hazardous Waste Treatment Council).

Inconsistencies Between the Delisting Program and the Land Disposal Restrictions Program

One commenter believed that there are inconsistencies between delisting levels proposed for Bethlehem and the Land Disposal Restrictions Program's proposed best demonstrated available technology (BDAT) treatment levels for K061 wastes. See 53 FR 23665 and 23669, June 23, 1988 and 53 FR 11742, April 8, 1988, respectively. (On August 17, 1988, the Agency promulgated BDAT treatment levels for K061 non-

wastewater wastes. See 53 FR 31138). Specifically, the commenter believed that for cadmium, chromium, lead, and mercury, either the total constituent concentration or the leachable constituent levels of Bethlehem's CSEAFD substantially exceed the BDAT treatment standards that EPA had proposed for K061 waste.

The Agency agrees with the commenters that there are differences in approach between some of the decision criteria used in individual delisting decisions and those used in the Land Disposal Restrictions Program (LDRP). However, these differences are appropriate given the separate functions of the two programs and their different statutory bases. The Delisting Program and the LDRP are fundamentally different in that the Delisting Program's standards are health-based and the LDRP's treatment standards are technology-based. See RCRA Section 3001 (42 U.S.C. 6921) and RCRA Section 3004 (42 U.S.C. 6924(m)), respectively. The Agency, however, believes that both the health-based and technology-based approaches of the Delisting Program and the LDRP, respectively, are protective of human health and the environment.

3. Final Agency Decision

For the reasons stated in the proposal, the Agency believes that Bethlehem's CSEAFD, when subject to the verification testing requirements specified in the exclusion, should be excluded from hazardous waste control. The Agency, therefore, is granting a final conditional exclusion to Bethlehem Steel Company, for its facilities located in Steelton, Pennsylvania, and Johnstown, Pennsylvania, for both its uncured and fully-cured chemically stabilized electric arc furnace dust treatment residue, described in the petitions as EPA Hazardous Waste No. K061. The exclusion applies only to the processes covered by the original demonstration. The facilities would require a new exclusion if either the manufacturing or treatment processes are significantly altered such that an adverse change in waste composition occurred. Accordingly, the facilities would need to file new petitions for the altered wastes. The facilities must treat wastes generated from changed processes as hazardous until a new exclusion is granted.

Although management of the waste covered by this petition is relieved from Subtitle C jurisdiction, the generator of a delisted waste must either treat, store, or dispose of the waste in an on-site facility, or ensure that the waste is

delivered to an off-site storage, treatment, or disposal facility, either of which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste. Alternatively, the delisted waste may be delivered to a facility that beneficially uses or reuses, or legitimately recycles or reclaims the waste, or treats the waste prior to such beneficial use, reuse, recycling, or reclamation.

III. Limited Effect of Federal Exclusion

The final exclusion being granted today is being issued under the Federal (RCRA) delisting program. States, however, are allowed to impose their own, non-RCRA regulatory requirements that are more stringent than EPA's, pursuant to § 3009 of RCRA. These more stringent requirements may include a provision which prohibits a Federally-issued exclusion from taking effect in the State. Since a petitioner's waste may be regulated under a dual system (*i.e.*, both Federal (RCRA) and State (non-RCRA) programs), petitioners are urged to contact their State regulatory authority to determine the current status of their wastes under State law.

IV. Effective Date

This rule is effective immediately. The Hazardous and Solid Waste Amendments of 1984 amended Section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here because this rule reduces, rather than increases, the existing requirements for persons generating hazardous wastes. In light of the unnecessary hardship and expense that would be imposed on this petitioner by an effective date six months after promulgation and the fact

that a six-month deadline is not necessary to achieve the purpose of Section 3010, EPA believes that this rule should be effective immediately upon promulgation. These reasons also provide a basis for making this rule effective immediately, upon promulgation, under the Administrative Procedures Act, pursuant to 5 U.S.C. 553(d).

V. Regulatory Impact

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This rule to grant exclusions is not major since its effect is to reduce the overall costs and economic impact of EPA's hazardous waste management regulations. This reduction is achieved by excluding wastes generated at two facilities from EPA's lists of hazardous wastes, thereby enabling the facilities to treat their wastes as non-hazardous. There is no additional economic impact, therefore, due to today's rule.

VI. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601-612, whenever an agency is required to publish a general notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis which describes the impact of the rule on small entities (*i.e.*, small businesses, small organizations, and small governmental jurisdictions). The Administrator or delegated representative may certify, however, that the rule will not have a significant economic impact on a substantial number of small entities.

This amendment will not have an adverse economic impact on small

entities since its effect will be to reduce the overall costs of EPA's hazardous waste regulations and is limited to two facilities. Accordingly, I hereby certify that this regulation will not have a significant economic impact on a substantial number of small entities. This regulation, therefore, does not require a regulatory flexibility analysis.

VII. Paperwork Reduction Act

Information collection and recordkeeping requirements associated with this final rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96-511, 44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2050-0053.

List of Subjects in 40 CFR Part 261

Hazardous materials, Waste treatment and disposal, Recycling.

Date: May 12, 1989.

Jeffery D. Denit,

Deputy Director, Office of Solid Waste.

For the reasons set out in the preamble, 40 CFR Part 261 is amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for Part 261 continues to read as follows:

Authority: Secs. 1006, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6905, 6912(a), 6921, and 6922.]

2. In Table 2 of Appendix IX, add the following wastestreams in alphabetical order:

Appendix IX—Wastes Excluded Under §§ 260.20 and 260.22

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
Bethlehem Steel Corp.	Steelton, PA	Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethlehem must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid: (1) Testing: (A) Initial Testing: During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
Bethlehem Steel Corp.	Johnstown, PA.	<p>(B) <i>Subsequent Testing:</i> Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l or for nickel exceeds 0.0126 mg/l; for cyanide exceeds 1.26 mg/l, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.</p> <p>(3) <i>Data submittals:</i> Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, S.W., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>"As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>"In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p> <p>Uncured and cured chemically stabilized electric arc furnace dust/sludge (CSEAFD) treatment residue (K061) generated from the primary production of steel after May 22, 1989. This exclusion is conditioned upon the data obtained from Bethlehem's full-scale CSEAFD treatment facility because Bethlehem's original data were obtained from a laboratory-scale CSEAFD treatment process. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Bethlehem must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:</p> <p>(1) <i>Testing:</i></p> <p>(A) <i>Initial Testing:</i> During the first four weeks of operation of the full-scale treatment system, Bethlehem must collect representative grab samples of each treated batch of the CSEAFD and composite the grab samples daily. The daily composites, prior to disposal, must be analyzed for the EP leachate concentrations of all the EP toxic metals, nickel and cyanide (using distilled water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. Bethlehem must report the analytical test data obtained during this initial period no later than 90 days after the treatment of the first full-scale batch.</p> <p>(B) <i>Subsequent Testing:</i> Bethlehem must collect representative grab samples from every treated batch of CSEAFD generated daily and composite all of the grab samples to produce a weekly composite sample. Bethlehem then must analyze each weekly composite sample for the EP leachate concentrations of all the EP toxic metals and nickel. Analyses must be performed according to SW-846 methodologies. The analytical data, including all quality control information, must be compiled and maintained on site for a minimum of three years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Pennsylvania.</p> <p>(2) <i>Delisting levels:</i> If the EP extract concentrations resulting from the testing in condition (1)(A) or (1)(B) for chromium, lead, arsenic, or silver exceed 0.315 mg/l; for barium exceeds 6.3 mg/l; for cadmium or selenium exceed 0.063 mg/l; for mercury exceeds 0.0126 mg/l; for nickel exceeds 3.15 mg/l; or for cyanide exceeds 1.26 mg/l, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.</p>

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Continued

Facility	Address	Waste description
		<p>(3) <i>Data submittals:</i> Within one week of system start-up, Bethlehem must notify the Section Chief, Variances Section (see address below) when their full-scale stabilization system is on-line and waste treatment has begun. All data obtained through the initial testing condition (1)(A), must be submitted to the Section Chief, Variances Section, PSPD/OSW, (OS-343), U.S. EPA, 401 M Street, SW., Washington, DC 20406 within the time period specified in condition (1)(A). At the Section Chief's request, Bethlehem must submit analytical data obtained through condition (1)(B) to the above address, within the time period specified by the Section Chief. Failure to submit the required data obtained from either condition (1)(A) or (1)(B) within the specified time periods will be considered by the Agency sufficient basis to revoke Bethlehem's exclusion to the extent directed by EPA. All data must be accompanied by the following certification statement:</p> <p>"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code which include, but may not be limited to, 18 U.S.C. 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.</p> <p>"As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.</p> <p>"In the event that any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."</p>

[FR Doc. 89-12181 Filed 5-19-89; 8:45 am]
BILLING CODE 6560-50-M

40 CFR Part 271

[FRL-3574-3]

Guam; Final Authorization of Territorial Hazardous Waste Management Program

AGENCY: Environmental Protection Agency.

ACTION: Immediate final rule.

SUMMARY: The Territory of Guam has applied for final authorization of revisions to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA has reviewed Guam's application and has made a decision, subject to public review and comment, that Guam's hazardous waste program revision satisfies all of the requirements necessary to qualify for final authorization. Thus, EPA intends to approve Guam's hazardous waste programs revisions. Guam's application for program revision is available for public review and comment.

DATED: Final authorization for Guam shall be effective July 21, 1989 unless EPA publishes a prior Federal Register action withdrawing this immediate final rule. All comments on Guam's program revision application must be received by the close of business June 21, 1989.

ADDRESSES: Copies of Guam's program revision application are available during the business hours of 9:00 a.m. to 5:00 p.m. at the following addresses for inspection and copying:

Guam Environmental Protection Agency, Harmon Industrial Plaza, Agana, Guam 96910 Phone: 671/646-8865.

U.S. EPA Headquarters Library, PM 211A, 401 M Street, SW., Washington, DC 20460 Phone: 202/382-5926.

U.S. EPA Region IX Library-Information Center, 215 Fremont Street, San Francisco, CA 94105 Phone: 415/974-8076.

Written comments should be sent to April Katsura, U.S. EPA Region IX (T-2-5), 215 Fremont Street, San Francisco, CA 94105 Phone: 415/974-8137.

FOR FURTHER INFORMATION CONTACT: April Katsura at the above address or phone number.

SUPPLEMENTARY INFORMATION:

A. Background

States with final authorization under section 3006(b) of the Resource Conservation and Recovery Act ("RCRA" or "the Act"), 42 U.S.C. 6929(b), have a continuing obligation to maintain a hazardous waste program that is equivalent to, consistent with, and no less stringent than the Federal hazardous waste program. In addition, as an interim measure, the Hazardous and Solid Waste Amendments of 1984 (Pub. L. 98-616, November 8, 1984,

hereinafter "HSWA") allows States to revise their programs to become substantially equivalent instead of equivalent to RCRA requirements promulgated under HSWA authority. States exercising the latter option receive "interim authorization" for the HSWA requirements under section 3006(g) of RCRA, 42 U.S.C. 6926(g), and later apply for final authorization for the HSWA requirements.

Revisions to State hazardous waste programs are necessary when Federal or State statutory or regulatory authority is modified or when certain other changes occur. Most commonly, State program revisions are necessitated by changes to EPA's regulations in 40 CFR Parts 260-266 and 124 and 270.

B. Guam

Guam initially received final authorization on January 27, 1986. On July 8, 1988, Guam submitted a program revision application for additional program approvals. Today, Guam is seeking approval of its program revision in accordance with 40 CFR 271.21(b)(3).

EPA has reviewed Guam's application, and has made an immediate final decision that Guam's hazardous waste program revisions satisfies all of the requirements necessary to qualify for final authorization. Consequently, EPA intends to grant final authorization for the additional program modifications to Guam. The public may submit written comments on EPA's immediate final decision up until June 21, 1989. Copies of

Guam's application for program revision are available for inspection and copying at the locations indicated in the "Addresses" section of this notice.

Approval of Guam's program revision shall become effective in 60 days unless an adverse comment pertaining to the Territory's revision discussed in this notice is received by the end of the comment period. If an adverse comment is received EPA will publish either (1) a withdrawal of the immediate final decision or (2) a notice containing a response to comments which either affirms that the immediate final decision takes effect or reverses the decision.

Guam is applying for authorization for the following Federal hazardous waste statute and regulations:

Federal requirement	Territory authority
● 3006(f) Availability of Information, 40 CFR Part 2, Subpart A 5 U.S.C. 552.	Government Code §§ 6981, 6982, 6985, 6986, and 6990; 10 Guam Code Annotated (GCA) § 51103(a)(11); Hazardous Waste Management Regulations (HWMR) Parts II.B, II.C.16, II.H, and IX.A.
● Exclusion of Household Waste (49 FR 44980, November 13, 1984).	10 GCA Section 51103(a)(11); HWMR Part III.A.
● Interim Status Standards Applicability (49 FR 46095, November 21, 1984).	10 GCA Section 51103(a)(11); HWMR Part VII.A.
● Corrections to Test Methods Manual (49 FR 47391, December 4, 1984).	10 GCA Section 51103(a)(11); HWMR Parts II.B, II.E, and IX.A.
● Satellite Accumulation (49 FR 49571, December 20, 1984).	10 GCA Section 51103(a)(11); HWMR Parts IV.A and D.
● Definition of Solid Waste (50 FR 614, January 4, 1985), as amended (50 FR 14216, April 11, 1984) and (50 FR 33542, August 20, 1985).	10 GCA Section 51103(a)(11); HWMR Parts II.B, III.A, VII.A, VII.B, and VII.C.
● Interim Status Standards for Treatment, Storage or Disposal Facilities (50 FR 16044, April 23, 1985).	10 GCA Section 51103(a)(11); HWMR Part VII.A.
● Financial Responsibility: Settlement Agreement (51 FR 16443, May 2, 1986).	10 GCA Sections 51103(a)(11) and 51104(c); HWMR Parts II.B, VII.A, VII.A, and IX.A.
● Listing of Spent Pickle Liquor (K062) (51 FR 19320, May 28, 1986).	10 GCA Section 51103(a)(11); HWMR Part III.A.

In its July 8, 1988 application, Guam has also requested authorization for section 3006(f) of HSWA, availability of information. This provision requires that state agencies provide public access to information equivalent to that provided by EPA under the Freedom of Information Act, 5 U.S.C. 552. EPA's

"cluster rule", 51 FR 33712, September 22, 1986, allows EPA to place a state on a compliance schedule to modify its program in accordance with 40 CFR 271.21(g). On February 5, 1987, EPA published a compliance schedule for the Territory of Guam to obtain program revisions for HSWA section 3006(f) (52 FR 3652).

Guam's program revision contains no Territorial requirements that are broader in scope than the relevant Federal requirements. Guam will not have issued any Territorial hazardous waste permits prior to being authorized for the above program revisions. The Territorial program does not include jurisdiction over Indian Lands, because there are no Indian Lands in Guam.

C. Decision

I conclude that Guam's application for program revision meets all of the statutory and regulatory requirements established by RCRA. Accordingly, Guam is granted final authorization to operate its hazardous waste program as revised. Guam has responsibility for permitting treatment, storage, and disposal facilities within its borders and carrying out other aspects of the RCRA program, subject to the limitation of its revised program application and previously approved authorities. Guam also has primary enforcement responsibilities, although EPA retains the right to conduct inspections under Section 3007 of RCRA and to take enforcement actions under Section 3008, 3013 and 7003 of RCRA.

Compliance with Executive Order 12291

The Office of Management and Budget has exempted this rule from the requirements of Section 3 of Executive Order 12291.

Certification Under The Regulatory Flexibility Act

Pursuant to the provisions of 4 U.S.C. 605(b), I hereby certify that this authorization will not have a significant economic impact on a substantial number of small entities. This authorization effectively suspends the applicability of certain Federal regulations in favor of Guam's program, thereby eliminating duplicative requirements for handlers of hazardous waste in the Territory. It does not impose any new burdens on small entities. This rule, therefore, does not require a regulatory flexibility analysis.

List of Subjects in 40 CFR Part 271

Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Indian

lands, Inter-governmental relations, Penalties, Reporting and recordkeeping requirements, Water pollution control, Water supply.

Authority: This notice is issued under the authority of sections 2002(a), 3006 and 7004(b) of the Solid Waste Disposal Act as amended 42 U.S.C. 6912(a), 6926, 6974(b).

Daniel W. McGovern,
Regional Administrator.

Dated: April 19, 1989.

[FR Doc. 89-12182 Filed 5-19-89; 8:45 am]

BILLING CODE 6560-50-M

FEDERAL EMERGENCY MANAGEMENT AGENCY

44 CFR Part 67

Final Flood Elevation Determinations; New York et al.

AGENCY: Federal Emergency Management Agency.

ACTION: Final rule.

SUMMARY: Modified base (100-year) flood elevations are finalized for the communities listed below.

These modified elevations are the basis for the floodplain management measures that the community is required to either adopt or show evidence of being already in effect in order to qualify or remain qualified for participation in the National Flood Insurance Program.

EFFECTIVE DATE: The date of issuance of the Flood Insurance Rate Map (FIRM) showing modified base flood elevations, for the community. This date may be obtained by contacting the office where the maps are available for inspection indicated on the table below.

ADDRESSES: See table below:

FOR FURTHER INFORMATION CONTACT: Mr. John L. Matticks, Chief, Risk Studies Division, Federal Insurance Administration, Federal Emergency Management Agency, Washington, DC 20472, (202) 646-2767.

SUPPLEMENTARY INFORMATION: The Federal Emergency Management Agency gives notice of the final determinations of flood elevations for each community listed. Proposed base flood elevations or proposed modified base flood elevations have been published in the *Federal Register* for each community listed.

The final rule is issued in accordance with Section 110 of the Flood Disaster Protection Act of 1968 (Title XIII of the Housing and Urban Development Act of 1968 (Pub. L. 90-448)), 42 U.S.C. 4001-4128, and 44 CFR Part 67. An

opportunity for the community or individuals to appeal the proposed determination to or through the community for a period of ninety (90) days has been provided.

The Agency has developed criteria for floodplain management in flood-prone areas in accordance with 44 CFR Part 60.

Pursuant to the provisions of 5 U.S.C. 605(b), the Administrator, to whom authority has been delegated by the Director, Federal Emergency Management Agency, hereby certifies for reasons set out in the proposed rule that the final flood elevation determinations, if promulgated, will not have a significant economic impact on a substantial number of small entities. Also, this rule is not a major rule under terms of Executive Order 12291, so no regulatory analyses have been proposed. It does not involve any collection of information for purposes of The Paperwork Reduction Act.

List of Subjects in 44 CFR Part 67

Flood insurance, floodplains.

The authority citation for Part 67 continues to read as follows:

Authority: 42 U.S.C. 4001 et seq., Reorganization Plan No. 3 of 1978, E.O. 12127.

Interested lessees and owners of real property are encouraged to review the proof Flood Insurance Study and FIRM available at the address cited below for each community.

The modified base flood elevations are finalized in the communities listed below. Elevations at selected locations in each community are shown. Any appeals of the proposed base flood elevations which were received have been resolved by the Agency.

Source of flooding and location	#Depth in feet above ground. Elevation in feet (NGVD). Modified
NEW YORK	
Oneida Castle (village), Oneida County (FEMA Docket No. 6945)	
Oneida Creek:	
Most downstream corporate limits.....	*427
Most upstream corporate limits.....	*452
Maps available for inspection at 17 W. 2nd Street, Oneida Castle, New York.	
OKLAHOMA	
Tulsa (city), Tulsa, Osage & Rogers Counties (FEMA Docket No. 6943)	
Arkansas River:	
Approximately 2,100 feet upstream of 71st Street bridge.....	*622
Approximately 3,450 feet downstream of 51st Street bridge.....	*624

Source of flooding and location	#Depth in feet above ground. Elevation in feet (NGVD). Modified
Approximately 800 feet downstream of Texas and Pacific Railroad bridge.....	*630
Approximately 1,950 feet upstream of St. Louis San Francisco Railway bridge.....	*636
Little Hakey Creek:	
Centerline of Mingo Road.....	*664
1,000 feet upstream of 91st Street.....	*672
Maps available for inspection at 200 Civic Center, Suite 642, Tulsa, Oklahoma.	
PENNSYLVANIA	
Morrisville (borough), Bucks County (FEMA Docket No. 6945)	
Delaware River:	
Downstream corporate limits.....	*20
Approximately 100 feet upstream of U.S. Route 1.....	*22
Maps available for inspection at 35 Union Street, Morrisville, Pennsylvania.	
SOUTH CAROLINA	
Greenwood County (unincorporated areas) (FEMA Docket No. 6948)	
Turner Branch:	
At mouth.....	*525
Just downstream of Newcastle Road.....	*590
Just upstream of Newcastle Road.....	*600
Just downstream of Earl Court.....	*602
Just upstream of Earl Court.....	*608
Just upstream of Lakelore Road.....	*622
Maps available for inspection at the Greenwood County Courthouse, Office of the County Engineers, Room 107, Greenwood, South Carolina.	
TENNESSEE	
Collierville (town), Shelby County (FEMA Docket No. 6948)	
Wolf River Lateral K:	
About 1.3 miles downstream of Collierville-Arlington Road.....	*294
About 1 mile downstream of Collierville-Arlington Road.....	*303
About 2100 feet downstream of Collierville-Arlington Road.....	*312
Just downstream of Collierville-Arlington Road.....	*334
Maps available for inspection at the Town Hall, 101 Walnut Street, Collierville, Tennessee.	
Rutherford County (unincorporated areas) (FEMA Docket No. 6948)	
East Fork Stones River:	
At mouth.....	*506
About 1000 feet downstream of Old Jefferson Pike.....	*506
West Fork Stones River:	
At mouth.....	*506
About 1.2 miles upstream of Old Jefferson Pike.....	*506
Maps available for inspection at the County Courthouse, 100 North Maple Street, Room 200, Murfreesboro, Tennessee.	
TEXAS	
Pearland (City), Brazoria and Harris Counties (FEMA Docket No. 6945)	
Clear Creek:	
Approximately 52 mile downstream of downstream corporate limits.....	*31
At upstream corporate limits.....	*47
Maps available for inspection at the City Hall, Department of Public Works, 3519 Liberty Drive, Pearland, Texas.	
VIRGINIA	
Craigsville (town), Augusta County (FEMA Docket No. 6945)	
Taylor Hollow:	
Approximately 70 feet upstream of State Route 42.....	*1,541

Source of flooding and location	#Depth in feet above ground. Elevation in feet (NGVD). Modified
Approximately 500 feet upstream of upstream corporate limits.....	*1,566
Maps available for inspection at 6 East Johnson Street, Staunton, Virginia.	

Harold T. Duryee,
Administrator, Federal Insurance
Administration.

Issued: May 9, 1989.

[FR Doc. 89-12206 Filed 5-19-89; 8:45 am]

BILLING CODE 6718-03-M

INTERSTATE COMMERCE COMMISSION

49 CFR Part 1004

[Ex Parte No. 55 (Sub-67)]

Interpretations and Routing Regulations

AGENCY: Interstate Commerce Commission.

ACTION: Notice of amendment to final rules.

SUMMARY: The Commission has adopted an amendment to the final rules promulgated in *Interpretations and Routing Regulations*, 5 I.C.C.2d 83 (1988), and published in the *Federal Register* at 53 FR 47219, November 22, 1988. In that case, we consolidated the interpretations and routing regulations into a central location, Part 1004, and removed obsolete matter. In connection with the so-called 1-airline-mile corridor rule (formerly 49 CFR 1041.12), we removed the prohibition against motor passenger carriers providing service beyond authorized regular routes within the Washington, DC, commercial zone and generally within the New York metropolitan area, in the belief the material was obsolete.

The American Bus Association filed a petition to reopen, seeking restoration of the exception for metropolitan New York. We have reinstated the New York area exception. We expressly indicated in our prior decisions that no substantive change was intended by the new rules. However, the act of removing the New York exception did effect a substantive change. Accordingly, consistent with our overriding original intent, we have restored the exception as to the New York metropolitan area.

EFFECTIVE DATE: June 21, 1989.

FOR FURTHER INFORMATION CONTACT:

Richard L. Gagnon, (202) 275-7711,

or

Richard B. Felder, (202) 275-7691 (TDD
for hearing impaired: (202) 275-1721)

SUPPLEMENTARY INFORMATION:

Additional information is contained in the Commission's decision. To purchase a copy of the full decision, write to, call, or pick up in person from: Dynamic Concepts, Inc., Room 2229, Interstate Commerce Commission Building, Washington, DC 20423. Telephone: (202) 289-4357/4359. (Assistance for the hearing impaired is available through TDD services (202) 275-1721.)

Environmental and Energy Considerations

We conclude that our action will not significantly affect either the quality of the human environment or conservation of energy resources.

Regulatory Flexibility Analysis

The Commission certifies that the final rule adopted here will not have a significant economic impact on a substantial number of small entities.

Our action merely involves restoration of a part of the prior rule in order to vitiate a substantive change that was unintended.

List of Subjects in 49 CFR Part 1004

Administrative practice and procedure, Motor carriers, Freight forwarders.

Authority: 49 U.S.C. 10321 and 5 U.S.C. 553.

Decided: May 15, 1989.

By the Commission, Chairman Gradison, Vice Chairman Simmons, Commissioners Andre, Lamboley, and Phillips.

Noreta R. McGee,
Secretary.

For the reasons set out in the preamble Title 49, Chapter X, Part 1004, of the Code of Federal Regulations, is amended as follows:

PART 1004—[AMENDED]

1. The authority citation for Part 1004 continues to read as follows:

Authority: 49 U.S.C. 10321 and 5 U.S.C. 553.

2. Section 1004.20 is revised to read as follows:

§ 1004.20 Regular-route motor passenger service.

(a) A motor common carrier authorized to transport passengers over regular routes may serve: (1) All points on its authorized route; (2) all municipalities wholly within 1 airline mile of its authorized route; (3) all unincorporated areas within 1 airline mile of its authorized route; and (4) all military posts, airports, schools, and similar establishments that may be entered within 1 airline mile of its authorized route, but operations within any part of such establishment more than 1 airline mile from such authorized route may not be over a public road.

(b) This section does not apply to those motor passenger common carriers authorized to operate within:

- (1) New York, NY;
- (2) Rockland, Westchester, Orange, or Nassau Counties, NY;
- (3) Fairfield County, CT; and
- (4) Passaic, Bergen, Essex, Hudson, Union, Morris, Somerset, Middlesex, or Monmouth Counties, NJ.

[FR Doc. 89-12142 Filed 5-19-89; 8:45 am]

BILLING CODE 7035-01-M

Proposed Rules

Federal Register

Vol. 54, No. 97

Monday, May 22, 1989

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

ADMINISTRATIVE CONFERENCE OF THE UNITED STATES

1 CFR Part 315

Roster of Dispute Resolution Neutrals

AGENCY: Administrative Conference of the United States.

ACTION: Proposed rule.

SUMMARY: This proposed rule establishes Administrative Conference policies and procedures for creating and operating a Roster containing information on mediators and other "neutrals" available to assist in resolving disputes under federal administrative programs. The Roster would be operated by the Conference for the benefit of other federal agencies and parties to disputes involving administrative programs. The Roster is intended to increase agencies' ability expeditiously to locate and retain mediators, trainers, and other apt neutrals across the country by creating a clearinghouse of basic data and to increase agency officials' awareness of the availability of alternative means of disputes resolution.

DATE: Comments must be received on or before July 6, 1989.

ADDRESS: Interested organizations and individuals are invited to submit written comments to Charles Pou, Jr., Senior Staff Attorney, Administrative Conference of the United States, 2120 L Street, NW., Suite 500, Washington, DC 20037. All written comments will be available for inspection during office hours at the above address.

FOR FURTHER INFORMATION CONTACT: Charles Pou, Jr., 202-254-7020.

SUPPLEMENTARY INFORMATION: The Roster will contain basic data on neutrals, so as to increase agencies' access to mediation services. The Roster has its origins in a series of Conference recommendations and studies on acquiring the services of persons to assist agencies in using alternative means of dispute resolution. The Roster

will further the Conference's statutory mission to serve as a clearinghouse for interchange of information potentially useful in improving administrative procedure.

The Administrative Conference has repeatedly encouraged agencies to take advantage of mediation, negotiation, minitrials, binding arbitration and other alternative means of dispute resolution ("ADR"). Some agencies have begun to employ these methods to reduce transaction costs and reach better results.

A key figure in the effective working of various modes of ADR, including negotiated rulemaking, is the "neutral"—a person, usually serving at the will of the parties, who generally presides and seeks to help the parties reach a resolution of their dispute. These neutrals, often highly skilled professionals with considerable training in techniques of dispute resolution, can be crucial to using ADR methods with success. For agencies to use ADR effectively, they should take steps to develop routines for deciding when and how these persons can be employed, to identify qualified neutrals, and to acquire their services. The Roster is intended to serve as a repository of data that will help agencies and others who employ ADR methods in government disputes to accomplish the following goals:

- Supply. Broadening the base of qualified, acceptable individuals or organizations, inside and outside the government, to provide ADR services.
- Qualifications. Insuring that neutrals have adequate skills, technical expertise, experience or other competence necessary to promote settlement, while avoiding being too exclusive in the selection process.
- Acquisition. Expediting methods, or developing new techniques, for expeditiously acquiring the services of neutrals at a reasonable cost and in a manner which (a) insures a full and open opportunity to compete and (b) enables agencies to select the most qualified person to serve as a neutral.

The Roster will provide agencies and other parties with basic data on neutrals, avoid routine Conference evaluation of neutrals' qualifications and performance, and limit the effort required for the Conference to prepare lists of requested neutrals. The Conference generally would not try to

match neutrals to particular disputes. Rather, it would generally provide a focused list of likely candidates, taking into account specifications of parties to disputes. This removes the Conference from most of the subjective decisionmaking in the selection process, while at the same time encouraging parties to become "informed consumers" capable of specifying the characteristics they desire in a prospective neutral. This underscores the need for guidance to the uninitiated; the Conference would provide an explanatory brochure on the Roster's use, offer telephone advice when requested on appropriate use of the Roster, and possibly refer parties to volunteer neutrals for further information.

The rules require neutrals to submit certain basic information, and make additional submissions optional. Required information, necessary for parties to obtain a list of likely candidates, would include depth and type of neutral experience, training, subject-matter expertise, education degrees, present organizational affiliation, and fee schedule. Additional information that may be helpful in making a final selection may be submitted, but is not necessary for listing.

All neutrals who supply the basic data will be listed. Given the Conference's resources and the potential size of the Roster, it is impractical for the Conference to investigate and verify all neutrals' applications. The rules adopt a certification approach used by many agencies which discourages dishonest submissions while not placing an investigative burden on the agency. At the same time, the Conference reserves the right to verify any information submitted and to remove from the Roster the names of people who falsify information submitted to the Conference. The rules make it clear to parties that the Conference will not guarantee the accuracy of information in its files.

The Roster files may be managed on a computer data base system. If so, the Conference expects to cross-reference Roster-listed neutrals according to categories that include experience, training, subject-matter expertise, educational degrees, organizational affiliation, and fee schedule.

To avoid conflicts of interest for neutrals, the rules require neutrals on the Roster to abide by the Society of Professionals in Dispute Resolution code of conduct that details what a neutral should disclose and how to handle potential conflicts of interest, as well as any other code that the neutral is subject to. The principal of disclosure appears to be the most practical means of discovering and avoiding conflicts of interest. The rules place an obligation on the neutral to act in accordance with ethical standards while allowing an up-to-date evaluation by the parties of the potential for conflict of interest based on the specifics of their particular dispute.

While the Conference reserves the right to remove neutrals who have falsified information or otherwise clearly violated accepted ethical standards, it would not ordinarily evaluate the quality of work by neutrals on the Roster. The Conference would simply disseminate to Roster users the names, addresses and phone numbers of parties in cases handled by each neutral on a panel, and prospective users can carry out their own inquiries. To document and evaluate program effectiveness, the Conference would ask parties to fill out a report card on the Roster program that includes questions regarding the effectiveness of guidance on choosing a neutral, satisfaction with the Conference's administrative efforts, and the quality of Roster-listed neutrals in general.

Parties may contact Roster staff if they are dissatisfied with the performance of a particular neutral whose name they obtained from the Conference's Roster. Only confirmed complaints involving significant violations of ethical standards or law would be retained in neutrals' files. The Conference retains the right to notify legal authorities if there is reason to suspect illegal activity has occurred.

Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601-612, requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have "significant economic impact" on a substantial number of small entities. The rule will have no such impact. It provides a wholly voluntary procedure by which parties may locate neutrals to help them reach agreement. Alternative dispute resolution techniques should provide a quicker, less expensive method of resolution than traditional litigation and negotiation.

Paperwork Reduction Act

Pursuant to 44 U.S.C. 3501 *et seq.*, and 5 CFR 1320.13, forms for collection of

data from persons wishing to be listed on the Roster must be submitted to the Office of Management and Budget (OMB) for approval. Accordingly, the Conference will submit the proposed registration form to OMB, and organizations or individuals desiring to submit comments regarding the information collection items on the form, are requested to direct their comments to (1) the Office of Information and Regulatory Affairs, Room 3002, New Executive Office Building, Washington, DC 20503, (2) with a copy to Charles Pou, Jr., Administrative Conference of the United States, 2120 L Street, NW., Suite 500, Washington, DC 20037. The annual estimated burden of reporting and recordkeeping is 500 hours.

List of Subjects in 5 CFR Part 316

Administrative practice and procedure, Claims, Intergovernmental relations.

Date: May 16, 1989.
William J. Olmstead,
Executive Director.

Part 316 is proposed to be added to Title 1, Chapter III, to read as follows:

Part 316—ROSTER OF DISPUTE RESOLUTION NEUTRALS

Subpart A—Conference Roster; Responsibilities

- Sec.
316.100 Scope and Purpose
316.101 Definitions
316.102 Administrative Responsibilities

Subpart B—Roster; Registration and Removal

- Sec.
316.200 The Roster
316.201 Adherence to Standards
316.202 Status of Neutrals
316.203 Registration
316.204 Rights of Persons Listed on the Roster
316.205 Removal

Subpart C—Procedures for Obtaining Names of Neutrals

- Sec.
316.300 Request
316.301 Submissions of Names of Neutrals
316.302 Conflict of Interest; Complaints

Authority: Pub. L. 88-499, 78 Stat. 615, U.S.C. 571 through 575; 31 U.S.C. 9701.

Subpart A—Conference Roster; Responsibilities

§ 316.100. Scope and Purpose.

These rules are issued pursuant to the Administrative Conference Act, 5 U.S.C. 571-575, providing authority to arrange for interchange among federal administrative agencies of information potentially useful in improving

administrative procedure, and to assist agencies to carry out regulatory activities and other federal responsibilities expeditiously in the public interest. This Part applies to all neutrals listed or seeking to be listed on the Roster, and to all persons or parties seeking to obtain from the Conference the names of neutrals listed on the Roster in connection with disputes involving federal administrative programs.

§ 316.101. Definitions.

(a) "Administrative program" means any program administered by a federal agency and includes a federal function which involves protection of the public interest and the determination of rights, privileges, and obligations of private persons through rulemaking, adjudication, licensing, or investigation, as such terms are used in section 551 of Title 5, U.S. Code.

(b) "Chairman" means the Chairman of the Administrative Conference of the United States.

(c) "Dispute" means any question material to a decision concerning an administrative program about which persons who would be substantially affected by the decision or the agency disagree.

(d) "Neutral" means an individual who, with respect to a dispute, serves as a conciliator, facilitator, mediator, fact-finder, or arbitrator, or otherwise functions specifically to aid the parties in resolving the dispute or portions thereof.

(e) "Party" means

(1) For proceedings with designated parties, the same as in section 551(3) of Title 5, U.S. Code;

(2) For proceedings without designated parties, a person who will be significantly affected by the decision and who participates in the proceeding; and

(3) The authorized representative of any agency charged with decisionmaking authority.

(f) "Roster" means a list maintained by the Chairman of persons qualified to provide services as neutrals in disputes relating to administrative programs.

§ 316.102. Administrative responsibilities.

The Chairman may establish and maintain a Roster of individuals to serve as neutrals in assisting parties in resolving disputes involving administrative programs. The Chairman shall have final responsibility for creation and maintenance of the Roster. The Chairman may review the status of all persons whose continued eligibility for listing on the Roster has been

questioned and make determinations about such eligibility according to the criteria set forth in § 316.205(a).

Subpart B—Roster; Registration and Removal

§ 316.200. The roster.

(a) The Roster shall consist of a listing of persons who provide all information required by the neutral registration form, and whose names have not been removed from the Roster in accordance with § 316.205(b).

(b) The Chairman and the Conference do not warrant the accuracy of the information furnished by persons listed on the Roster.

§ 316.201. Adherence to standards.

Persons listed on the Roster shall have committed in writing to comply with all provisions of Part 316 and subsequent amendments hereto as from time to time may be issued by the Conference.

§ 316.202. Status of neutrals.

Persons listed on the Roster are not employees of the Conference or Federal Government by virtue of their listing.

§ 316.203. Registration.

(a) Persons wishing to be listed on the Roster will obtain and complete a current neutral registration form and have it notarized or otherwise attested.

(b) Upon receipt of a completed registration form, the Chairman will review the form to assure that all required information has been provided. The Chairman reserves the right to review and to verify data submitted, but any such attempts to verify submitted data will not constitute a warranty of accuracy. A prospective registrant shall be notified in writing of a decision that an application is incomplete or inaccurate. The Conference may require persons wishing to be listed to provide additional information from time to time. All decisions by the Chairman about whether a registration form is sufficiently complete and accurate are final.

(c) At least once every two years, a person listed on the Roster will either (1) submit a new registration form, or (2) send the Chairman a short letter verifying the continuing accuracy of the person's current listing.

(d) Persons wishing to be listed on the Roster must agree that the Chairman may provide the names, addresses and telephone numbers of parties in cases handled, including all cases to which the neutral was referred as a result of listing on the Roster. They shall also certify that all data supplied is accurate and agree to abide by ethical standards that

may be promulgated by the Society of Professionals in Dispute Resolution and such other standards as may be applicable to them.

(e) The Chairman reserves the right to charge fees for obtaining or renewing listing or for using the Roster.

§ 316.204. Rights of Persons listed on the roster.

(a) No person shall have any right to be listed, to remain listed, nor to be referred or selected for any dispute.

(b) A person listed on the Roster may request that he or she be put on inactive status, returned to active status, or removed from the Roster.

(c) Neutrals may request revision of data supplied on the neutral evaluation form, or any summaries thereof.

§ 316.205 Removal.

(a) Any person may be removed from the Roster by the Chairman whenever the neutral:

(1) Is found to have submitted materially false data in connection with registration on the Roster;

(2) Fails or refuses to provide information required to obtain or maintain registration or to make reasonable and prompt reports, as required by Conference procedures;

(3) Fails to disclose any information required by section 302(a);

(4) Has been the subject of complaints of significant unethical or illegal behavior by parties who use the neutral's services as a result of referral from the Roster and the Chairman after appropriate inquiry finds just cause for removal; or

(5) Is found by the Chairman to have improperly disclosed any record or communication arising from a proceeding without the parties' consent unless such record or communication is properly ordered to be disclosed under the agency's applicable procedural rule or by a Court of competent jurisdiction.

(b) Prior to removal under paragraph (a) of this section, the Chairman shall offer the neutral 45 days in which to submit arguments and evidence relevant to the decision. Any decision to remove a neutral's name from the Roster shall be accompanied by a brief statement of reasons.

Subpart C—Procedure For Obtaining Names of Neutrals

§ 316.300 Request.

Any party or parties to a dispute involving a federal administrative program may file with the Chairman a written request for a list of neutrals. Telephone requests may be accepted at the Chairman's discretion. A request for the names of neutrals shall contain a

brief statement of the nature of the dispute and the names, addresses and telephone numbers of all parties to the dispute. A request form has been prepared for parties' use. Requests should be addressed to: Manager of Roster Services, Office of the Chairman, Administrative Conference of the United States, 2120 L Street, NW., Suite 500, Washington, DC 20037. The initiating party shall also file a copy of the request with every other party to the dispute. Neither the request for, nor the furnishing of, a list of names constitutes a determination that an agreement to mediate or enter into any other dispute resolution procedure exists, nor does such action constitute any finding about the obligations of the parties.

§ 316.301 Submission of names of neutrals.

(a) Upon receipt of a request for names, the Chairman shall ordinarily send the requester approximately the requested number of names of listed neutrals who appear to be qualified and a biographical statement for each name so provided. The Chairman may establish procedures or guidance for the purpose of providing the parties with a list of names of neutrals. If the parties cannot agree on a neutral after the receipt of these names, the Chairman may, on request of the parties and in his discretion, select an individual either named or not named in the list sent to the parties.

(b) The Chairman reserves the right to decline to submit names if the request is unduly burdensome or otherwise impracticable.

(c) If jointly requested by all parties, the Chairman may furnish a second, or third list of names to the parties. Requests for further lists in that dispute will not be honored.

(d) The parties shall notify the Chairman of their selection of a neutral and of the identity of the neutral selected, or of the decision not to use the services of a neutral whose name was furnished by the Conference.

§ 316.302 Conflict of interest; complaints.

(a) Any person listed on the Roster, who is contacted by a party to a dispute as a result of that listing, must disclose to all parties to that dispute, prior to beginning dispute resolution efforts, the following interests or relationships:

(1) Any existing or past financial, business, professional, family, social or other relationships with any of the parties to the dispute, their employees, or their attorneys;

(2) Previous or current involvement in the dispute at hand;

(3) Past or prospective employment, including employment as a neutral in previous disputes, by any of the parties;

(4) Past or present receipt of a significant portion of the neutral's general operating funds or grants to the neutral or the organization by which the neutral is employed from one or more of the parties to the dispute; or

(5) Any other circumstances likely to create a presumption of bias or the appearance of bias.

All scheduling conflicts which may prevent prompt meetings shall also be disclosed. Upon receipt of such information which results in the disqualification of a neutral either by the Chairman or upon the request of any party, the Chairman may supply to the requesting party one or more additional names from the Roster.

(b) The Chairman may require into complaints alleging violations of legal or ethical standards by a neutral in a case handled pursuant to Roster listing. If such allegations are confirmed, the Chairman may remove the neutral's name from the Roster and retain the complaint in the neutral's file. The Chairman retains the right to notify legal or other authorities if there is reasons to believe illegal or unethical activity has occurred.

[FR Doc. 89-12172 Filed 5-19-89; 8:45 am]

BILLING CODE 6110-01-M

DEPARTMENT OF AGRICULTURE

Commodity Credit Corporation

7 CFR Part 1493

CCC Export Credit Guarantee Program (GSM-102) and CCC Intermediate Export Credit Guarantee Program (GSM-103)

AGENCY: Commodity Credit Corporation, USDA.

ACTION: Notice of request for comments.

SUMMARY: The Commodity Credit Corporation (CCC) administers the Export Credit Guarantee Program (GSM-102) and the Intermediate Export Credit Guarantee Program (GSM-103). These programs were developed to encourage export of U.S. agricultural commodities and to aid in the development of foreign markets for those commodities. See 15 U.S.C. 714c(f) and 7 U.S.C. 1707a(b)(2). Under these programs, the CCC issues credit guarantees to U.S. exporters of agricultural commodities or products, providing protection against risk of loss due to nonpayment by foreign banks under the letter of credit financing the

export sale. These guarantees are intended to increase commercial exports of U.S. agricultural products.

The CCC has received applications for credit guarantees under the GSM-102 and GSM-103 programs for export sales that contain some amount of imported agricultural goods (i.e., agricultural commodities or products thereof that have been imported into the United States or admitted into a Foreign Trade Zone from outside the United States). It is CCC's policy that a credit guarantee under these programs does not cover the value of imported agricultural products. CCC announced on February 15, 1989 that, pending public comment and evaluation on this issue, it would discontinue approving credit guarantees for export sales that contain any percentage of imported agricultural products whatsoever. The public is invited to comment.

DATE: Comments must be received on or before August 21, 1989.

ADDRESS: Comments should be submitted to the General Sales Manager, Foreign Agricultural Service, USDA, Washington, DC 20250.

FOR FURTHER INFORMATION CONTACT:

L. T. McElvain, Director, CCC Operations Division, Export Credits, Foreign Agricultural Service, Washington, DC 20250. Tel: (202) 447-6225.

SUPPLEMENTARY INFORMATION: In a Notice to Exporters issued on September 21, 1988, CCC confirmed that the value of imported agricultural goods was not eligible to be covered under the GSM-102 and GSM-103 export credit programs. In that Notice, CCC set out the text of a written certification that would be required from program participants, effective October 1, 1988, identifying the percentage of port value of the commodity or product to be exported that consisted of imported agricultural products. CCC explained that the program participant was required to exclude from their calculation of the guaranteed value of the export sale any portion attributable to imported agricultural products (i.e., agricultural commodities or products thereof imported into the United States, or admitted into a Foreign Trade Zone from outside the United States).

In that same Notice, CCC also announced, effective October 1, 1988, that it would decline to approved credit guarantees for any export sale in which the value of imported agricultural products comprised more than 25 percent of the port value of the sale. CCC informed exporters that it reserved the right, pursuant to provisions of 7 CFR Part 1493, to annul coverage or to

hold the exporter liable for any amount paid by CCC under a payment guarantee if the value of imported agricultural products represented more than 25 percent of the total port value of an export sale made in connection with a GSM-102 or GSM-103 credit guarantee.

After issuing its September 21, 1988 Notice, CCC received inquiries and comments from various trade associations and members of Congress expressing concern about CCC approval of credit guarantees for export sales that included imported agricultural products.

Generally, these comments advocated a more restrictive approach that would deny GSM-102 or GSM-103 eligibility to export sales which included any amount of imported agricultural products whatsoever. CCC decided to monitor closely the initial applications that it received after October 1, 1988 to determine the frequency and types of export sales that included imported agricultural products and the levels of imported content reported for those sales, and to evaluate the proposals to revise administration of the programs in light of actual experience.

Since October 1, 1988, CCC has received a number of applications involving export sales of four different agricultural commodities or products thereof (tobacco, leather, soft drink concentrate, and grocery items) in which exporters have certified that the export sales included some percentage of imported agricultural product. These applications were submitted and approved in accordance with the terms and conditions set forth in the September 21 Notice. However, after obtaining experience in administering the program on the basis set forth in the September 21 Notice, and after experiencing difficulties in reporting, valuation and administration, CCC issued a subsequent Notice to Exporters on February 15, 1989. In that Notice, CCC announced that, pending receipt and consideration of formal public comment on the issue, it had decided to approve only those applications for credit guarantees in which the export sale contained no value attributable to imported agricultural products.

The public is invited to submit comment on this issue. Specifically, CCC seeks comments that will identify those commodities and agricultural products that would be most affected if CCC continues to disapprove credit guarantees for sales whose port value includes any value of imported agricultural product. CCC is also seeking comments regarding any difficulties experienced or anticipated in connection with determining the value

of an imported agricultural product that may be included in an export sale. Commentors are encouraged to submit all relevant information, either case specific or generic. If other related issues can be identified, comments should be submitted accordingly.

Each person submitting suggestions is requested to include his/her name and address and give reasons for the comments and suggestions. Copies of all written materials will be available for examination by interested persons during regular business hours in Room 4503, South Building, U.S. Department of Agriculture, Washington, DC.

List of Subjects in 7 CFR Part 1493

Agricultural commodities, Credit, Exports, Financing, Guarantees.

Dated: May 12, 1989.

Christopher E. Goldthwait,

Acting General Sales Manager and Vice President, Commodity Credit Corporation
[FR Doc. 89-12176 Filed 5-19-89; 8:45 am]

BILLING CODE 3410-05-M

NATIONAL CREDIT UNION ADMINISTRATION

12 CFR Parts 700 and 702

Definitions; Reserves; Full and Fair Disclosure

AGENCY: National Credit Union Administration (NCUA).

ACTION: Proposed amendments.

SUMMARY: The NCUA Board requests comments on proposed changes to the National Credit Union Administration Rules and Regulations that deal with redefining the "loans and risk assets" that determine federal credit unions and federally insured state credit union reserve requirements. Before considering these proposed changes to the Rules and Regulations, the NCUA Board on October 19, 1987, requested comments on this same subject because they felt they needed to get the views of the credit unions before moving forward with any changes.

This initial comment period produced approximately 300 comment letters. As a result of the overwhelming response to this comment period, the NCUA Board recommended at its April 14, 1988, Board meeting that a review of the statute, regulation and accounting procedures involving reserves, risk assets, and reserve transfers be made and that NCUA work with the credit union and state regulatory trade organizations to develop a systematic, cohesive approach to the broad issue of the capital position of credit unions. The

proposed regulatory changes are a result of the review and analysis process that have taken place with these organizations and within the National Credit Union Administration.

DATE: Comments must be received by August 21, 1989.

ADDRESS: Send comments to Becky Baker, Secretary, NCUA Board, 1776 G Street, NW, Washington, DC 20456.

FOR FURTHER INFORMATION CONTACT: D. Michael Riley, Director, Office of Examination and Insurance at the above address or telephone (202) 682-9640.

SUPPLEMENTARY INFORMATION:

Background

Pursuant to Section 116 of the Federal Credit Union Act (12 U.S.C. 1762), credit unions must set aside a certain percentage of their assets as reserves. Section 700.1(j) of the NCUA Rules and Regulations (12 CFR 700.1(j)) lists which assets are exempt from the reserve requirements (definition of risk assets). The nature of a credit union's balance sheet has changed dramatically since the original reserve procedures were established. At that time, consumer loans made up almost all of a credit union's assets and thus the credit union made reserve transfers on what were essentially total assets. At present, a substantial part of most credit union's balance sheets is in assets not considered by definition to be risk assets. These items are not included in the assets that determine minimum statutory reserve goals. Events of recent years have shown, however, that substantial losses can occur on many of these assets.

Accordingly, the NCUA Board made the decision to review the issues involving risk assets and reserve requirements. The NCUA Board wanted to ensure consistency between credit union reserves against losses and the risk inherent in the current asset structures of credit unions. During the comment period initiated by the NCUA Board in October 1987, (52 FR 38771, 10/19/87) the NCUA Board received comments that made four general points:

- The definition of risk assets could be improved, particularly in the area of long-term assets;
- No change should be made to the definition that would adversely affect credit unions;
- Credit unions involved with riskier undertakings should be required to reserve at a higher rate; and
- Statute and regulation needs improvement.

This initial comment period clearly indicated to the NCUA Board that this issue needed further review and in April

1988, the NCUA Board recommended that a review be made on the statute, regulation and accounting procedures involving reserves, risk assets and reserve transfers. It also directed NCUA to work with the credit union industry to develop a systematic, cohesive approach to the broad issue of the capital position of credit unions.

Immediately after this decision was made by the NCUA Board, a Credit Union Reserves Study Commission was formed in cooperation with the credit union trade organizations and state regulatory authorities. The Commission, after several months of hard work, decided that the issue of redefining risk assets and reserve requirements needed to be presented to credit unions again, not for a vote, but as survey to solicit their view on several issues. The survey asked for their opinion on:

- Keeping the reserve requirements as they are now;
- Adding "long-term" investments to the current definition of "risk assets";
- Replacing the current system of reserving with a "net capital contribution" requirement based on the credit union's capital to asset ratio. "Net capital contribution" would be defined as the net change in its capital (all reserves and undivided earnings) from one accounting period to the next, net of non-operating gains or losses.

The responses were mixed, with strong support for almost every combination. The "make no change" position had the strongest response, but many of the narrative comments with the "make no change" position seemed to indicate modest changes were necessary. The Commission published its findings in February 1989 and made two recommendations.

The first recommendation is that the credit union movement should seek legislative and regulatory changes to replace the current system of required transfers to regular reserves with a system of required net capital contributions. In addition, they recommended that regulatory agencies consider making several regulation changes which would change the current required reserve transfer system.

After review of the regulations, the NCUA Board is proposing the following changes to the National Credit Union Administration Rules and Regulations:

Section 700.1(j) Definitions

Add to the list of assets that will be included as part of risk assets for the purpose of determining the reserves required by Section 116 of the Federal Credit Union Act:

(1) Ownership of fixed assets, as defined by § 701.36 of the NCUA Rules and Regulations, is excess of 5 percent of total shares and retained earnings; (Proposed § 700.1(k)(11)) and

(2) Investments with a remaining maturity over 3 years that are not carried at the lower of cost or market or are not marked to market value monthly. (Proposed § 700.1 (j) and (k)(16)).

Section 702.2 Regular Reserve

a. That the Allowance for Investment Losses be included with the Allowance for Loan Losses and Regular Reserve in determining the applicable percentage of gross income to be transferred to the Regular Reserve. (Proposed § 702.2(a))

b. Charges to the Regular Reserve for losses other than loan losses must be approved by the Regional Director. (Proposed § 702.2(c))

Section 702.3 Full and Fair Disclosure

Add a provision that the maintenance of a valuation allowance for investments and other losses does not eliminate the requirement for transferring a percentage of gross income before the payment of each dividend to the Regular Reserve as required by Section 116 of the Federal Credit Union Act. (Proposed § 702.3(c)(1))

Regulatory Procedures

Regulatory Flexibility Act

The NCUA Board has determined and certified that the proposed amendment, if adopted, will not have a significant economic impact on a substantial number of small credit unions (primarily those under \$1 million in assets). Accordingly, the NCUA Board has determined that a Regulatory Flexibility Analysis is not required.

Paperwork Reduction Act

This proposed rule, if adopted, will impose the requirement that any federally insured credit union wanting to make a charge against the Regular Reserve for losses other than loan losses must have the approval of the Regional Director. This requirement will be submitted to the Office of Management and Budget for review under the Paperwork Reduction Act. Written comments on this rule should be forwarded directly to the OMB Desk Officer indicated below at the following address: OMB Reports Management Branch, New Executive Office Building, Room 3208, Washington, DC 20530, ATTN: Jerry Waxman.

Executive Order 12612

The NCUA Board has considered the fact that this proposed rule will affect

federally insured state-chartered credit unions (FISCUs) in the determination of transfers to reserves. It does not impose any additional cost or burden on the states, nor does it affect the states' ability to discharge traditional state government functions. The benefits provided and protection afforded by the NCUSIF is the same for FISCUs as it is for federal credit unions. It is protection afforded through a federal system and the responsibility for administering that system lies with the NCUA Board. All federally insured credit unions, whether federal or state chartered, will be subject to the same requirements. The requirement for all federally insured credit unions are the same, i.e., reserve transfers in accordance with section 116 of the Federal Credit Union Act. The acts and requirements subject to this proposed rule have implications for the entire federally insured credit union system and its insurer and are not unique to only one type of charter.

List of Subjects

12 CFR Part 700

Credit unions, Risk assets, Reserve requirements.

12 CFR Part 702

Credit unions, Regular Reserve charges, Full and fair disclosure.

By the National Credit Union Administration Board on May 11, 1989.
Becky Baker,
Secretary of the Board.

Accordingly, NCUA proposes to amend its regulations as follows:

PART 700—[AMENDED]

1. The authority citation for Part 700 continues to read as follows:

Authority: 12 U.S.C. 1752(5), 1757(6), and 1766.

2. Paragraphs (j) and (k) of § 700.1 are revised as follows:

§ 700.1 Definitions

(j) "Remaining maturity" is the time period from the date of calculation of risk assets to the stated date of maturity of the instrument.

(k) For the purpose of establishing the reserves required by section 116 of the Federal Credit Union Act, all assets except the following shall be considered risk assets:

- (1) Cash on hand.
- (2) Deposits and/or shares in federally or state insured banks, savings and loan associations, and credit unions that have a remaining maturity of 3 years or less.

(3) Assets which have a remaining maturity of 3 years or less and are insured by, fully guaranteed as to principal and interest by, or due from the U.S. Government, its agencies, the Federal National Mortgage Association, or the Government National Mortgage Association. Collateralized mortgage obligations that are comprised of government guaranteed mortgage loans shall be included in this asset category.

(4) Loans to other credit unions that have a remaining maturity of 3 years or less.

(5) Student loans insured under the provisions of Title IV, Part B of the Higher Education Act of 1965 (20 U.S.C. 1071, et seq.) or similar state insurance programs that have a remaining maturity of 3 years or less.

(6) Loans that have a remaining maturity of 3 years or less and are fully insured or guaranteed by the federal or a state government or any agency of either.

(7) Shares or deposits in central credit unions that have a remaining maturity of 3 years or less. A central credit union is defined as a credit union whose membership primarily consists of:

- (i) Other credit unions organized under state or federal law,
- (ii) Officials, committee members, and employees of any credit union organized under state or federal law, or
- (iii) Any combination of the categories described in paragraphs (R)(7) (i) and (ii) of this section.

(8) Common trust investments, including mutual funds, which deal in investments authorized by the Federal Credit Union Act that have a remaining maturity of 3 years or less.

(9) Prepaid expenses.

(10) Accrued interest on nonrisk investments.

(11) Ownership of fixed assets as defined by § 701.36 of these Rules and Regulations less than 5 percent of total shares and retained earnings.

(12) Loans fully secured by a pledge of shares in the lending federal credit union, equal to and maintained to at least the amount of the loan outstanding.

(13) Loans which are purchased from liquidating credit unions and guaranteed by the National Credit Union Administration.

(14) National Credit Union Share Insurance Fund Guaranty Accounts established with the authorization of the National Credit Union Administration under the authority of section 208(a)(1) of the Federal Credit Union Act.

(15) Investments in shares of the National Credit Union Administration Central Liquidity Facility.

(16) Investments in paragraphs (k) (2), (3), (4), (5), (6), (7), and (8) of this section with maturities greater than 3 years are exempt from risk assets if the investment is being carried on the credit union's records at the lower of cost or market, or are being marked to market value monthly.

3. Part 702 be amended as follows:

PART 702—RESERVES

4. The authority citation for Part 702 is revised to read as follows:

Authority: 12 U.S.C. 1762 and 1766.

5. Section 702.2 is revised to read as follows:

§ 702.2 Regular reserve.

(a) Each federal credit union shall establish and maintain a Regular Reserve, as provided by Section 116 of the Federal Credit Union Act. The totals of the Regular Reserve, the Allowance for Loan Losses Account, and the Allowance for Investment Losses shall be combined for determining the applicable percentage of gross income to be transferred to the Regular Reserve.

(b) Charges to the Regular Reserve for loan losses shall be made in accordance with full and fair disclosure and as set forth in the Accounting Manual for Federal Credit Unions.

(c) The Board may decrease the reserve requirements as set forth in section 116 of the Act when, in its opinion, such decrease is necessary or desirable. Charges to the Regular Reserve for losses other than loan losses must be approved by the Regional Director.

6. Section 702.3(c)(1) is revised to read as follows:

§ 702.3 Full and fair disclosure required.

(c)(1) The maintenance of a valuation allowance for loan losses and investment or other losses shall not eliminate the requirement for transferring a percentage of gross income before the payment of each dividend to the regular reserve as required by section 116 of the Federal Credit Union Act.

[FR Doc. 89-12217 Filed 5-19-89; 8:45 am]
BILLING CODE 7535-01-M

ACTION: Proposed amendment.

SUMMARY: The National Credit Union Administration ("NCUA") Board, as part of its periodic review of its regulations, has reviewed § 701.31—

Nondiscrimination Requirements. In general, the Board believes that § 701.31 is not in need of major revision. The Board proposes to simplify and clarify the regulation by making several technical changes. Changes to the Federal Fair Housing Act and the Department of Housing and Urban Development's regulations require minor amendments to § 701.31 and to NCUA's Federal Fair Lending poster.

DATE: Comments must be received on or before August 21, 1989.

ADDRESS: Send comments to Becky Baker, Secretary of the Board, National Credit Union Administration, 1776 G Street, NW., Washington, DC 20456.

FOR FURTHER INFORMATION CONTACT: Roy DeLoach, NCUA, Office of General Counsel, 1776 G Street, NW., Washington, DC 20456, telephone: (202) 682-9630.

SUPPLEMENTARY INFORMATION:

Background

On October 24, 1988, the NCUA Board published a Request for Comments concerning § 701.31 of the NCUA's Rules and Regulations—Nondiscrimination Requirements (see 53 FR 41609). The comment period ended on January 23, 1989. Only four comment letters were received. Two national credit union trade associations, one state credit union league, and one Federal credit union commented. Three of the commenters were satisfied with the regulation in its present form. One commenter suggested technical and clarifying changes.

In the interest of keeping this section simple to use and understand, the NCUA Board is proposing only minor technical changes and changes required by the Fair Housing Amendments Act of 1988. The substantive changes required by the Fair Housing Amendments Act expand prohibited housing practices to include handicap and familial status. The NCUA's Fair Lender poster has also been revised to include these changes.

Section 701.31 is designed to summarize in one place the prohibitions on discrimination in lending activities contained in: (1) the Federal Housing Act (42 U.S.C. 3601 *et seq.*) and Department of Housing and Urban Development (HUD) regulations issued thereunder; and (2) the Equal Credit Opportunity Act (15 U.S.C. 1691) and the Federal Reserve Board's Regulation B (12 CFR Part 202) issued thereunder. The

NCUA last amended § 701.31 on August 31, 1979 (44 FR 51191).

The Fair Housing Act (42 U.S.C. 3601 *et seq.*) contains provisions prohibiting discrimination in real estate lending. HUD has promulgated regulations implementing the Fair Housing Act (see 24 CFR Parts 14, 100, 103, 104, 105, 106, 109, 110, 115, and 121). Although not required to do so, the NCUA promulgated § 701.13 implementing the Fair Housing Act's provisions and certain provisions of the Equal Credit Opportunity Act as they apply to FCU lenders.

The Fair Housing Amendments Act of 1988 (Pub. L. 100-430, approved September 13, 1988) amended the Fair Housing Act. On January 23, 1989, HUD promulgated regulations implementing these changes (54 FR 3232). The effective date of the new HUD regulations was March 12, 1989.

The Fair Housing Amendments Act expands the coverage of the Fair Housing Act to prohibit discriminatory housing practices based on familial status (having children under the age of 18) and handicap, establishes an administrative and judicial enforcement mechanism for cases where discriminatory housing practices cannot be resolved informally, and provides for monetary penalties in cases where discrimination is found. The Fair Housing Amendments Act also establishes design and construction requirements for certain new multifamily dwellings for first occupancy on or after March 13, 1991, and an exemption from the prohibitions against discrimination on the basis of familial status for certain housing for older persons. (See 24 CFR Parts 100-121 for more detailed guidance on new requirements.)

Section 701.31 also implements certain provisions of the Equal Credit Opportunity Act ("ECOA") (15 U.S.C. 1691). Again, NCUA is not required to promulgate regulations implementing the ECOA. Regulation B (12 CFR Part 202), promulgated by the Federal Reserve Board, is the implementing regulation for the ECOA. All credit unions, including Federal credit unions ("FCU's"), must comply with Regulation B. The NCUA is the enforcement agency with respect to FCU's. The Federal Trade Commission is the enforcement agency with respect to all other credit unions. (See 15 U.S.C. 1691c and 12 CFR Part 202 App. A.)

A general description of each paragraph of § 701.31 and the proposed modifications follow. The NCUA Board requests comment on the proposed changes and any other proposed modifications to the regulation.

12 CFR Part 701

Credit Unions; Nondiscrimination Requirements

AGENCY: National Credit Union Administration (NCUA).

Section-by-Section Analysis

Section 701.31(a) contains three definitions—that of application, dwelling, and real estate-related loan. The definition of application is taken from Regulation B. The definitions of dwelling and real estate-related loan are taken from the Fair Housing Act. There are no proposed changes to the definitions.

Section 701.31(b)(1) presently prohibits discrimination on the basis of race, color, religion, sex, or national origin of the applicant, joint applicants, persons associated therewith, present or prospective owners, lessees, tenants or occupants of the dwelling upon which a loan is requested or dwellings in the same vicinity. These are prohibitions found in the Fair Housing Act (*see* 42 U.S.C. 3605). The Fair Housing Amendments Act prohibits discrimination based on two additional classifications—handicapped persons and familial status. The proposed rule amends § 701.31(b)(1) to add these two new classifications.

Section 701.31(b)(2) presently prohibits the use of a landing criterion or policy which has the effect of discriminating on the basis of race, color, religion, sex, or national origin. The proposed rule amends § 701.31(b)(2) to add the two new classifications of discrimination (handicap and familial status) added by the Fair Housing Amendments Act. There is also one technical amendment deleting "of this Part" from the last sentence of this section.

Section 701.31(b)(3) lists factors that generally have a discriminatory effect and are therefore prohibited. There are no proposed changes to this section.

Sections 701.31(c)(1)–(3) are similar to § 701.31(b)(1)–(3) except that they apply to appraisals of a dwelling. As stated above, the Fair Housing Amendments Act prohibits discrimination based on two additional classifications—handicapped persons and familial status. Proposed § 701.31(c)(1) and (2) are amended to reflect these changes. There are no proposed changes to § 701.31(c)(3).

Section 701.31(c)(4) states that certain factors concerning a dwelling's location may be legally relied upon, despite § 701.31(c)(3). The NCUA proposes one technical amendment deleting "of this Part" from the last sentence of § 701.31(c)(4).

Section 701.31(c)(5) requires that an FCU retain an appraisal and make such appraisal available to the loan applicant for 25 months. There are no proposed changes to this section.

Sections 701.31(d)(1)–(3) require FCU's to provide notice of nondiscrimination in all pertinent advertising. HUD regulations require that a poster setting forth notice of nondiscrimination be displayed by real estate lenders. The poster must contain specifically worded nondiscrimination pledges, the equal housing logo, and regulatory contacts for complaints of discrimination. (*See* 24 CFR Part 110.) Federal financial regulators, such as NCUA, may request a waiver of HUD's poster requirement and substitute a similar poster for the financial institutions they regulate. (*See* 24 CFR 110.25(b).) In a letter dated March 14, 1989, from HUD's Office of the Assistant Secretary for Fair Housing and Equal Opportunity, NCUA received a waiver of the HUD poster requirements and approval of a substitute poster for Federal credit unions. The waiver permits FCU's to display NCUA's poster in place of HUD's poster. The waiver does not affect the application of the Fair Housing Act of HUD's regulations to FCU's. Proposed § 701.31(d)(3) is amended to reflect the approved poster for FCU's. A copy of the new poster has been sent to all FCU's. Duplicates are available from NCUA's Regional Offices.

Section 701.31(e) sets out guidelines that explain and interpret the requirements found in § 701.31 (a)–(d). One minor change is proposed in this section. Section 701.31(e)(1) explains the "effects test" of discrimination and then cites two Supreme Court cases that describe the test. The NCUA Board proposes to eliminate reference to these two cases. Case citations rarely, if ever, appear in the NCUA Rules and Regulations. The NCUA Board does not believe they add anything to this regulation and, therefore, proposes that they be deleted. The NCUA Board also proposes to amend this section to include handicap and familial status as prohibited bases of discrimination.

Regulatory Procedures

This proposed rule makes no substantive changes to the current rule. Neither a Regulatory Flexibility Analysis nor Paperwork Reduction Act analysis are required.

Executive Order 12612

This regulation explains the law and sets forth previously established guidelines for Federal credit unions; it adds no new obligations. Although Federal statutes prohibiting discrimination (Fair Housing Act and Equal Opportunity Act) apply to state-chartered credit unions as well, this regulation does not apply to them.

List of Subjects in 12 CFR Part 701

Credit unions, Discrimination in real estate lending.

By the National Credit Union Administration Board on May 11, 1989.

Becky Baker,

Secretary of the Board.

Accordingly, NCUA proposes to amend its regulation as follows:

PART 701—[AMENDED]

1. The authority citation for Part 701 continues to read as follows:

Authority: 12 U.S.C. 1755, 1756, 1757, 1759, 1761a, 1761b, 1766, 1767, 1782, 1784, 1787, 1789, and 1798. Section 701.31 is also authorized by 15 U.S.C. 3601–3610.

2. Section 701.31 is revised as follows:

§ 701.31 Nondiscrimination requirements.

(a) *Definitions:* As used in this part, the term:

(1) "Application" carries the meaning of that term as defined in 12 CFR 202.2(f) (Regulation B), which is as follows: "an oral or written request for an extension of credit that is made in accordance with procedures established by a creditor for the type of credit requested";

(2) "Dwelling" carries the meaning of that term as defined in 42 U.S.C. 3602(b) (Fair Housing Act), which is as follows: "Any building, structure, or portion thereof which is occupied as, or designed or intended for occupancy as, a residence by one or more families, and any vacant land which is offered for sale or lease for the construction or location thereon of any building, structure, or portion thereof"; and

(3) "real estate-related loan" means any loan for which application is made to finance or refinance the purchase, construction, improvement, repair, or maintenance of a dwelling.

(b) *Nondiscrimination in Lending.* (1) A Federal credit union may not deny a real estate-related loan, nor may it discriminate in setting, or exercising its rights pursuant to, the terms or conditions of such a loan, nor may it discourage an application for such a loan, on the basis of the race, color, national origin, religion, sex, handicap, or familial status (having children under the age of 18) of:

(i) Any applicant or joint applicant;

(ii) Any person associated, in connection with a real estate-related loan application, with an applicant or joint applicant;

(iii) The present or prospective owners, lessees, tenants, or occupants of the dwelling for which a real estate-related loan is requested;

(iv) The present or prospective owners, lessees, tenants, or occupants of other dwellings in the vicinity of the dwelling for which the real estate-related loan is requested.

(2) With regard to a real estate-related loan, a Federal credit union may not consider a lending criterion or exercise a lending policy which has the effect of discriminating on the basis of race, color, national origin, religion, sex, handicap, or familial status (having children under the age of 18). Guidelines concerning possible exceptions to this provision appear in § 701.31(e)(1).

(3) Consideration of any of the following factors in connection with a real estate-related loan is not necessary to a Federal credit union's business, generally has a discriminatory effect, and is therefore prohibited:

(i) The age or location of the dwelling;

(ii) Zip code of the applicant's current residence;

(iii) Previous home ownership;

(iv) The age or location of dwellings in the neighborhood of the dwelling;

(v) The income level of residents in the neighborhood of the dwelling.

(c) *Nondiscrimination in Appraisals.*

(1) A federal credit union may not rely upon an appraisal of a dwelling if it knows or should know that the appraisal is based upon consideration of the race, color, national origin, religion, sex, handicap, or familial status (having children under the age of 18) of:

(i) Any applicant or joint applicant;

(ii) Any person associated, in connection with a real estate-related loan application, with an applicant or joint applicant;

(iii) The present or prospective owners, lessees, tenants, or occupants of the dwelling for which a real estate-related loan is requested;

(iv) The present or prospective owners, lessees, tenants, or occupants of other dwellings in the vicinity of the dwelling for which a real estate-related loan is requested.

(2) With respect to a real estate-related loan, a Federal credit union may not rely upon an appraisal of a dwelling

if it knows or should know that the appraisal is based upon consideration of a criterion which has the effect of discriminating on the basis of race, color, national origin, religion, sex, handicap, or familial status (having children under the age of 18). Guidelines concerning possible exceptions to this provision appear in § 701.31(e)(1).

(3) A Federal credit union may not rely upon appraisal that it knows or should know is based upon consideration of any of the following criteria, for such criteria generally have a discriminatory effect, and are not necessary to a Federal credit union's business:

(i) The age or location of the dwelling;

(ii) The age or location of dwellings in the neighborhood of the dwelling;

(iii) The income level of the residents in the neighborhood of the dwelling.

(4) Notwithstanding paragraph (c)(3) of this section, it is recognized that there may be factors concerning location of the dwelling which can be properly considered in an appraisal. If any such factor(s) is relied upon, it must be specifically documented in the appraisal, accompanied by a brief statement demonstrating the necessity of using such factor(s). Guidelines concerning the consideration of location factors appear in § 701.31(e)(3).

(5) Each Federal credit union shall make available, to any requesting member/applicant, a copy of the appraisal used in connection with that member's real estate-related loan application. The appraisal shall be available for a period of 25 months after the applicant has received notice from the Federal credit union of the action taken by the Federal credit union on the real estate-related loan application.

(d) *Nondiscrimination in advertising.*—(1) *Advertising notice of nondiscrimination compliance.* (i) No Federal credit union may directly or indirectly engage in any form of advertising of real estate-related loans which implies or suggests that the Federal credit union discriminates in violation of the provisions of the Fair

Housing Act of 1968 or of this Section. Advertisements of such loans shall include a facsimile of the following:



**EQUAL HOUSING
LENDER**

**We Do Business in Accordance With
Federal Fair Lending Laws**

(ii) Advertisements of real estate-related loans which are broadcast on the radio shall contain the following statement: "The (insert name) Federal Credit Union is an equal housing lender."

(2) *Lobby notice of nondiscrimination compliance.* Every Federal credit union which engages in real estate-related lending shall conspicuously display in the public lobby of such credit union and in the public area of each office where such loans are made, in a manner so as to be clearly visible to the general public entering such lobby or area, a notice that incorporates a facsimile of the logotype and notice appearing in paragraph (d)(3) of this section. Posters containing this notice and logotype may be obtained from the Regional Offices of the National Credit Union Administration.

(3) *Logotype and notice of nondiscrimination compliance.* The logotype and text of the notice required in paragraph (d)(2) of this section shall be as follows:

BILLING CODE 7535-01-M



**EQUAL HOUSING
LENDER**

**We Do Business in Accordance With
Federal Fair Lending Laws**

**UNDER THE FEDERAL FAIR HOUSING ACT, IT IS ILLEGAL, ON THE BASIS OF
RACE, COLOR, NATIONAL ORIGIN, RELIGION, SEX, HANDICAP, OR FAMILIAL
STATUS (HAVING CHILDREN UNDER THE AGE OF 18), TO:**

- Deny a loan for the purpose of purchasing, constructing, improving, repairing or maintaining a dwelling, or deny any loan secured by a dwelling; or
- Discriminate in fixing the amount, interest rate, duration, application procedures or other terms or conditions of such a loan, or in appraising property.

**IF YOU BELIEVE YOU HAVE BEEN DISCRIMINATED
AGAINST, YOU SHOULD SEND A COMPLAINT TO:**

**Assistant Secretary for Fair Housing and Equal Opportunity
Department of Housing & Urban Development
Washington, D.C. 20410**

**For processing under the Federal Fair Housing Act
and to:**

**National Credit Union Administration
Office of Examination and Insurance
Washington, D.C. 20456**

For processing under NCUA Regulations

.....
**UNDER THE EQUAL CREDIT OPPORTUNITY ACT, IT IS ILLEGAL
TO DISCRIMINATE IN ANY CREDIT TRANSACTION:**

- On the basis of race, color, national origin, religion, sex, marital status, or age.
- Because income is from public assistance, or
- Because a right was exercised under the Consumer Credit Protection Act.

**IF YOU BELIEVE YOU HAVE BEEN DISCRIMINATED
AGAINST, YOU SHOULD SEND A COMPLAINT TO:**

**National Credit Union Administration
Office of Examination and Insurance
Washington, D.C. 20456**

(e) *Guidelines.* (1) Compliance with the Fair Housing Act is achieved when each loan applicant's creditworthiness is evaluated on an individual basis, without presuming that the applicant has certain characteristics of a group. If certain lending policies or procedures do presume group characteristics, they may violate the Fair Housing Act, even though the characteristics are not based upon race, color, sex, national origin, religion, handicap, or familial status. Such a violation occurs when otherwise facially nondiscriminatory lending procedures (either general lending policies or specific criteria used in reviewing loan applications) have the effect of making real estate-related loans unavailable or less available on the basis of race, color, sex, national origin, religion, handicap, or familial status. Note, however, that a policy or criterion which has a discriminatory effect is not a violation of the Fair Housing Act if its use achieves a legitimate business necessity which cannot be achieved by using less discriminatory standards. It is also important to note that the Equal Credit Opportunity Act and Regulation B prohibit discrimination, either per se or in effect, on the basis of the applicant's age, marital status, receipt of public assistance, or the exercise of any rights under the Consumer Credit Protection Act.

(2) Paragraph (b)(3) of this section prohibits consideration of certain factors because of their likely discriminatory effect and because they are not necessary to make sound real estate-related loans. For purposes of clarification, the prohibited use of location factors in this section is intended to prevent abandonment of areas in which a Federal credit union's members live or want to live. It is not intended to require loans in those areas that are geographically remote from the FCU's main or branch offices or that contravene the parameters of a Federal credit union's charter. Further, this prohibition does not preclude requiring a borrower to obtain flood insurance protection pursuant to the National Flood Insurance Act and Part 760 of NCUA's Rules and Regulations, nor does it preclude involvement with Federal or state housing insurance programs which provide for lower interest rates for the purchase of homes in certain urban or rural areas. Also, the legitimate use of location factors in an appraisal does not constitute a violation of the provision of paragraph (b)(3) of this section, which prohibits consideration of location of the dwelling. Finally, the prohibited use of

prior home ownership does not preclude a Federal credit union from considering an applicant's payment history on a loan which was made to obtain a home. Such action entails consideration of the payment record on a previous loan in determining creditworthiness; it does not entail consideration of prior home ownership.

(3)(i) Paragraph (c)(3) of this section prohibits consideration of the age or location of a dwelling in a real estate-related loan appraisal. These restrictions are intended to prohibit the use of unfounded or unsubstantiated assumptions regarding the effect upon loan risk of the age of a dwelling or the physical or economic characteristics of an area. Appraisals should be based on the present market value of the property offered as security (including consideration of specific improvements to be made by the borrower) and the likelihood that the property will retain an adequate value over the term of the loan.

(ii) The term "age of the dwelling" does not encompass structural soundness. In addition, the age of the dwelling may be used by an appraiser as a basis for conducting further inspections of certain structural aspects of the dwelling. Paragraph (c)(1) of this section does, however, prohibit an unsubstantiated determination that a house over X years in age is not structurally sound.

(iii) With respect to location factors, paragraph (c)(2) of this section recognizes that there may be location factors which may be considered in an appraisal, and requires that the use of any such factors be specifically documented in the appraisal. These factors will most often be those location factors which may negatively affect the short range future value (up to 3-5 years) of a property. Factors which in some cases may cause the market value of a property to decline are recent zoning changes or a significant number of abandoned homes in the immediate vicinity of the property. However, not all zoning changes will cause a decline in property values, and proximity to abandoned buildings may not affect the market values of a property because the cause of abandonment is unrelated to high risk. Proper considerations include the condition and utility of the improvement and various physical factors such as street conditions, amenities such as parks and recreation areas, availability of public utilities and municipal services, and exposure to flooding and land faults.

[FR Doc. 89-12212 Filed 5-19-89; 8:45 am]

BILLING CODE 7535-01-M

12 CFR Part 701

Organization and Operation of Federal Credit Unions

AGENCY: National Credit Union Administration (NCUA).

ACTION: Proposed revision to regulation.

SUMMARY: The NCUA Board (Board) is proposing to revise § 701.21(f) (15 Year Loans) of its Rules and Regulations. The proposal results from an amendment to the Federal Credit Union Act and NCUA's policy to periodically review each of its regulations. This revision will permit a Federal credit union to make loans with maturities of up to 20 years for mobile home, secondary mortgage and home improvement loans.

DATE: Comments must be received on or before August 21, 1989.

ADDRESS: Send comments to Becky Baker, Secretary of the Board, National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

FOR FURTHER INFORMATION CONTACT: D. Michael Riley, NCUA, Director, Office of Examination and Insurance, 1776 G Street NW., Washington, DC 20456, telephone: (202) 682-9640 or Roy DeLoach, NCUA, Office of General Counsel, 1776 G Street NW., Washington, DC 20456, telephone: (202) 682-9630.

SUPPLEMENTARY INFORMATION: Federal credit unions are currently authorized to make loans to members at maturities of up to 12 years with certain exceptions. Lines of credit have no statutory or regulatory maturity limitations. First mortgage loans secured by a first lien on the principal residence of the member-borrower may be granted with maturities of up to 40 years. Section 701.21(f) of the NCUA Rules and Regulations currently implements an FCU's authority to make loans with maturities of up to 15 years in the case of: (1) A loan to finance the purchase of a mobile home if the mobile home will be used as the member-borrower's residence and the loan is secured by a first lien on the mobile home, (2) a second mortgage loan (or a nonpurchase money first mortgage loan in the case of a residence on which there is no existing first mortgage) if the loan is secured by a residential dwelling which is the residence of the member-borrower, and (3) a loan to finance the repair, alteration, or improvement of a residential dwelling which is the residence of the member-borrower.

Section 702 of the Competitive Equality Banking Act of 1987 (CEBA) amended the Federal Credit Union Act

to give the Board authority to set maturity limits for second mortgage loans, mobile home loans and home improvement loans at "up to 15 years or any longer term which the Board may allow." Prior to the CEBA, the maturity for these loans was 15 years. In November 1988, the Board requested public comment on whether it should exercise its regulatory authority to allow maturities in excess of 15 years on second mortgage and home improvement loans. Although not stated in the request, mobile home loans are also being considered within the scope of this review.

A total of 28 comments were received in response to the request for comments. The comments came from 23 Federal credit unions, two state credit union leagues, two national credit union trade organizations and one national banking trade organization. Of these comments, 25 supported extending the maturity limit. Only three commenters believed that the authority should remain at 15 years. Commenters who supported extending the maturity limits recommended various maximum maturity limits to consider ranging from 20 years to unlimited maturity. Many commenters cited the difficulty borrowers face when fluctuating interest rates result in an increase in payments or a balloon payment in order to ensure a 15-year term as their rationale for an increase in the maturity limit. In addition, several commenters expressed the opinion that loans with maturities in excess of 15 years should be variable rate in order to provide some interest rate risk protection to the credit union.

The Board is proposing to revise § 701.21(f) by permitting maturities of up to 20 years. In issuing this proposal, the Board is attempting to provide credit unions and their member-borrowers with the flexibility to make certain loans so that the total maturity will not extend beyond 20 years notwithstanding market interest rate fluctuations near the end of the term. In addition, credit unions are expected to take appropriate steps to adjust underwriting standards to ensure that the extension of credit is appropriate for the total term of the loan.

Regulatory Procedures

Regulatory Flexibility Act

The Board has determined and certified that the proposed amendment, if adopted, will not have a significant economic impact on a substantial number of small credit unions (primarily those under \$1 million in assets). Accordingly, the Board has determined

that a Regulatory Flexibility Analysis is not required.

Paperwork Reduction Act

This proposed rule makes no changes to collection requirements, therefore, it need not be sent to the Office of Management and Budget for approval.

Executive Order 12612

This amendment does not affect state regulation of credit unions. It implements provisions of the Federal Credit Union Act applying only to Federal credit unions.

List of Subjects in 12 CFR Part 701

Credit unions, 20-year loans, Second mortgages, Mobile home loans, Home improvement loans.

By the National Credit Union Administration Board on May 11, 1989.

Becky Baker,

Secretary of the Board.

Accordingly, NCUA proposes to amend its regulations as follows:

PART 701—[AMENDED]

1. The authority citation for Part 701 continues to read as follows:

Authority: 12 U.S.C. 1755, 1756, 1757, 1759, 1761a, 1761b, 1766, 1767, 1782, 1784, 1787, 1789, and 1796. Section 701.31 is also authorized by 15 U.S.C. 1601, *et seq.*, 42 U.S.C. 1861 and 42 U.S.C. 3601-3610.

2. Section 701.21(f) is proposed to be revised as follows:

§ 701.21 [Amended]

* * * * *

(f) *20-year loans.* Notwithstanding the general 12-year maturity limit on loans to members, a Federal credit union may make loans with maturities of up to 20 years in the case of:

(1) A loan to finance the purchase of a mobile home if the mobile home will be used as the member-borrower's residence and the loan is secured by a first lien on the mobile home,

(2) A second mortgage loan (or a nonpurchase money first mortgage loan in the case of a residence on which there is no existing first mortgage) if the loan is secured by a residential dwelling which is the residence of the member-borrower, and

(3) A loan to finance the repair, alteration, or improvement of a residential dwelling which is the residence of the member-borrower.

* * * * *

[FR Doc. 89-12218 Filed 5-19-89; 8:45 am]

BILLING CODE 7535-01-M

12 CFR Part 708

Mergers of Federally-Insured Credit Unions: Voluntary Termination or Conversion of Insured Status

AGENCY: National Credit Union Administration ("NCUA").

ACTION: Proposed amendment.

SUMMARY: The NCUA Board proposes to amend its regulation relating to mergers of federally-insured credit unions and changes in insured status. This proposal will add "approval" and "disapproval" boxes to the ballots used for membership voting on termination of Federal insurance or conversion from Federal insurance to non-Federal insurance. The proposal will not affect the day-to-day operations of federally-insured credit unions.

DATES: Comments must be received on or before August 21, 1989.

ADDRESSES: Send comments to Becky Baker, Secretary of the Board, National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

FOR FURTHER INFORMATION CONTACT: James J. Engel, Deputy General Counsel at the above address or telephone: (202) 357-1030.

SUPPLEMENTARY INFORMATION: In April, 1987, the NCUA adopted regulations that added new provisions regarding the termination or conversion of Federal share insurance and set forth forms to be used in obtaining membership approval of those actions. (See 52 FR 12370, April 16, 1987, effective May 18, 1987.) Three of those provisions, §§ 708.301(a)(2), 708.302(a)(2) and (b)(2), contained the language that is to appear on the ballot used to obtain membership approval. A fourth provision, § 708.301(b)(2), references the language set forth in § 708.301(a)(2). Although the provisions required a signature line for a member to use, they did not prescribe the method for indicating whether the member approved or disapproved of the proposed action.

Generally, this has not caused any problems because "yes" or "no" boxes have been included along with the required language on the ballots provided to the members. Where only the language required by the regulation is used, however, all returned ballots have counted as affirmative votes. In a recent instance, members who returned their ballots were eligible for prizes to be awarded at the credit union's annual meeting. While this did provide incentive to return the ballot, it did not necessarily reflect the member's position on the proposed action since the ballot did not indicate whether the

member approved or disapproved of the action. If anything, it was indicative of the member's desire to be eligible for a prize.

In order to avoid this problem in the future, the NCUA Board is proposing to amend the ballot provisions of Part 708 to include boxes to be checked by the member to clearly show whether the member is in favor of or opposed to the action presented.

It should be kept in mind that share insurance, whether provided by NCUA through the National Credit Union Share Insurance Fund of by a private or cooperative insurance fund or guaranty corporation, is designed to protect the savings of the credit union members, not the institution itself or its management. Therefore, any decision regarding that insurance protection is to be made by the members, and the methods used to obtain their decision must be designed to clearly evidence each individual's position on the issue.

In addition to the above proposal, the NCUA Board is soliciting comments on two other related issues. First, there is currently no specific requirement that the reasons for termination or conversion of Federal insurance must be set out for the membership. The NCUA Board believes it may be desirable to have such information reviewed by the appropriate regional director before the information is submitted to the membership.

Second, there is no specified period for completion of the termination or conversion process. Currently, a credit union must notify the regional director 90 days prior to a termination or conversion and the NCUA Board will approve or disapprove within 90 days of notification. This does not, however, establish a specified time when the termination or conversion becomes effective. While the NCUA Board and the credit union can agree to the actual effective date, it may be advisable to establish a maximum period during which the action must be completed.

The NCUA Board specifically requests comments or recommendations on both of these issues.

Regulatory Procedures

Regulatory Flexibility Act

The NCUA Board has determined and certifies that the proposed amendment, if adopted, will not have a significant economic impact on a substantial number of small credit unions (primarily those under \$1 million in assets). Further, this proposed amendment does not affect the daily operations of credit unions. Accordingly, the Board has

determined that a Regulatory Flexibility Analysis is not required.

Paperwork Reduction Act

The Proposal would not impose any additional paperwork requirements and, thus, the requirements of the Paperwork Reduction Act do not apply.

Executive Order 12612

The NCUA board, pursuant to Executive Order 12612, has determined that the proposed amendment will not have a direct effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. While the proposed amendment will affect some federally-insured state chartered credit unions, it will not preempt provisions of state law or regulation.

List of Subjects in 12 CFR Part 708

Credit unions, Mergers of Federally-insured credit unions, Voluntary termination or conversion of insured status.

By the National Credit Union Administration Board on May 11, 1989.

Becky Baker,
Secretary of the Board.

Accordingly, NCUA Proposes to amend its regulations in 12 CFR Part 708 as follows:

PART 708—[AMENDED]

1. The authority citation for Part 708 is revised to read as follows:

Authority: 12 U.S.C. 1766, 1785, 1786, and 1789.

§ 708.301 [Amended]

2. Section 708.301(a)(2) is revised to read as follows:

(a) * * *

(2) The ballot for obtaining membership approval to terminate Federal insurance shall contain the following language:

This ballot must be received by the Credit Union by (date for vote).

I understand that if termination of Federal insurance is approved, accounts made by me will not be insured by the National Credit Union Administration, as agency of the Federal Government, I also understand that my accounts in the Credit Union on a maximum of \$100,000, will continue to be insured for one (1) year after the date of termination, but that any withdrawals after the date of termination will reduce the insurance coverage by the amount of the withdrawal.

} Approve.
} Do not approve.
Signed _____
Members name _____

Date _____
* * * * *

3. Section 708.302(a)(2) is revised to read as follows:

(a) * * *

§ 708.302 [Amended]

(2) The ballot to obtain membership approval of the conversion shall contain the following language:

This ballot must be received by the Credit Union by (date for vote).

I understand that, if the conversion of insurance is approved, the share (deposit) insurance that I now have (up to \$100,000 provided by the National Credit Union Administration, an agency of the Federal Government) will terminate upon the effective date of the conversion and my shares will be insured up to \$ _____ by _____, a corporation chartered by the

State of _____
} Approve.
} Do not approve.
Signed _____
Member's Name _____
Date _____
* * * * *

4. Section 708.302(b)(2) is revised to read as follows:

(6) * * *

(2) The Ballot to obtain membership approval shall contain the following language:

This ballot must be received by the Credit Union by (date for vote).

I understand that, if the merger of the (merging) Credit Union into the (continuing) Credit Union is approved, the share (deposit) insurance that I not have (up to \$100,000 provided by the National Credit Union Administration, an agency of the Federal Government) will terminate upon the effective date of the merger and my share in the (continuing) Credit Union will be insured up to \$ _____ by _____, a corporation chartered by the State of _____

} Approve.
} Do not approve.
Signed _____
Member's Name _____
Date _____
* * * * *

[FR Doc. 89-12216 Filed 5-19-89; 8:45 am]

BILLING CODE 7535-01-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 89-NM-56-AD]

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This notice proposes a new airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, which would require periodic inspections of the fuselage skin just above the forward main entry doors for cracks emanating from the circumferential skin splice, and modifications, if necessary. This proposal is prompted by reports of cracks on 15 airplanes in this area. This condition, if not corrected, could lead to loss of cabin pressure during flight.

DATES: Comments must be received no later than July 10, 1989.

ADDRESSES: Send comments on the proposal in duplicate to the Federal Aviation Administration, Northwest Mountain Region, Transport Airplane Directorate, ANM-103, Attention: Airworthiness Rules Docket No. 89-NM-56-AD, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168. The applicable service information may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Mr. Richard H. Yarges, Airframe Branch, ANM-120S; telephone (206) 431-1925. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments specified above will be considered by the Administrator before taking action on the proposed rule. The proposals contained in this Notice may be changed in light of the comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA/public contact concerned with the substance of

this proposal will be filed in the Rules Docket.

Availability of NPRM

Any person may obtain of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Airworthiness Rules Docket No. 89-NM-56-AD, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

Discussion

Eight operators of Boeing 747 airplanes have reported 0.1 to 15.0-inch vertical skin cracks on Model 747 airplanes, that run circumferentially along the aft row of fasteners at the body station (BS) 460 skin splice between stringers S-14E and S-164. The reported cracking has been detected on 15 airplanes that had accumulated between 12,000 and 15,000 flight cycles. Skin cracks at this location are attributed to cabin pressure cyclic loading. This condition, if not corrected, could result in loss of cabin pressure during flight.

The FAA has reviewed and approved Boeing Service Bulletin 747-53-2289, Revision 1, dated January 26, 1989, which describes eddy current inspection and modification procedures for the skin at the BS 460 splice.

Since this condition is likely to exist or develop on other airplanes of this same type design, an AD is proposed which would require periodic high frequency eddy current inspection of the skin at the BS 460 skin splice, and modification, if necessary, in accordance with the service bulletin previously described.

The eddy current inspections proposed in this Notice would be required to be conducted in an environment that does not inhibit clear view of the fastener head. Accordingly, this proposed rule requires that paint be removed prior to inspection, using an approved chemical stripper, or that the fastener be clearly visible through the paint and no more than two coats of paint are on the airplane. This proposed requirement is equivalent to the requirements of AD 88-22-11, Amendment 39-6059 (53 FR 44156; November 1, 1988), which requires similar inspections of Model 737 series airplanes. The two-coat paint criteria as developed by the FAA as an objective standard to minimize improper use of inspection equipment and enhance detection of cracks. Since the issuance of AD 88-22-11, the FAA has received information that an inspection standard based on the number of coats of paint may not reliably define acceptable surface conditions, due to the wide variation in cost thicknesses. The FAA,

therefore, requests comments intended to develop an inspection standard that assures the most accurate possible results without requiring unnecessary paint stripping.

In addition to the inspections proposed in this NPRM, the FAA also proposing mandatory preventative modification of the inspection area in a separate rule making action that deals rejuvenation of the aging 747 fleet.

There are approximately 205 Model 747 series airplanes of the affected design in the worldwide fleet. It is estimated that 113 airplanes of U.S. registry would be affected by this AD, that it would take approximately 3 manhours per airplane to accomplish the required actions, and that the average labor cost would be \$40 per manhour. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$13,560.

The regulations proposed herein would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For these reasons, the FAA has determined that this document (1) involves a proposed regulation which is not major under Executive Order 12291 and (2) is not a significant rule under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and it is further certified under the criteria of the Regulatory Flexibility Act that this proposed rule, if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities because few, if any, Model 747 airplanes are operated by small entities. A copy of a draft regulatory evaluation prepared for this action is contained in the regulatory docket.

List of Subjects in 14 CFR Part 39

Aviation Safety, Aircraft.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) as follows:

PART 39—[AMENDED]

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding the following new airworthiness directive:

Boeing: Applies to Model 747 series airplanes, listed in Boeing Service Bulletin 747-53-2289, Revision 1, dated January 26, 1989, certificated in any category. Compliance required as indicated, unless previously accomplished.

To prevent cabin pressure loss due to fatigue cracks in the skin at body station (BS) 460 just above left and right number 1 main entry doors, accomplish the following:

A. Prior to the accumulation of 10,000 landings, or within the next 1,000 landings after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 3,000 landings, conduct a high frequency eddy current (HFEC) inspection of the fuselage skin along the aft row of fasteners at the left and right BS 460 circumferential splices between stringers S-14E and S-16 for cracks, in accordance with Boeing Service Bulletin 747-53-2289, Revision 1, dated January 26, 1989. If the external doubler modification forward of BS 460 has not previously been installed in accordance with Boeing Service Bulletins 747-53-2181 or 747-53-2105, then also conduct a HFEC inspection of the fuselage skin along the forwardmost row of fasteners of the same skin splice.

B. To conduct the inspections required by this AD, remove the paint, using an approved chemical stripper, or ensure that the fastener heads are clearly visible and that no more than two coats of paint are on the airplane skin.

C. If cracks are found, modify the affected BS 460 circumferential splice in accordance with Boeing Service Bulletin 747-53-2289, Revision 1, dated January 26, 1989, prior to further flight.

D. Terminating action for HFEC inspection requirements of paragraph A., above, consists of modification of the left and right BS 460 circumferential splices between S-14E and S-16 in accordance with Boeing Service Bulletin 747-53-2289, Revision 1, dated January 26, 1989.

E. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

Note.—The request should be forwarded through an FAA Principal Maintenance Inspector (PMI), who may add any comments and then send it to the Manager, Seattle Aircraft Certification Office.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base in order to comply with the requirements of this AD.

All persons affected by this directive who have not already received the appropriate service documents from the manufacturer may obtain copies upon

request to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or Seattle Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington.

Issued in Seattle, Washington, on May 9, 1989.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 89-12199 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 71

[Airspace Docket No. 89-ASO-21]

Proposed Amendment to Transition Area, Clemson, SC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to amend the Clemson, SC, Transition Area. A new Standard Instrument Approach Procedure (SIAP) has been developed for Runway 25 at the Clemson-Oconee County Airport based on the Foothills VHF Omnidirectional Range/Tactical Air Navigation (VORTAC). Additional airspace is required for protection of Instrument Flight Rule (IFR) aircraft executing the new SIAP. The existing transition area would be increased from within a 5-mile radius of the airport to within a 6.5-mile radius of the airport; and the width of the arrival area extension east of the airport would be increased from 6 to 9 miles.

DATES: Comments must be received on or before: June 30, 1989.

ADDRESSES: Send comments on the proposal in triplicate to: Federal Aviation Administration, ASO-530, Manager, Airspace and Procedures Branch, Docket No. 89-ASO-21, P.O. Box 20636, Atlanta, Georgia 30320.

The official docket may be examined in the Office of the Assistant Chief Counsel for Southern Region, Room 652, 3400 Norman Berry Drive, East Point, Georgia 30344, telephone: (404) 763-7646.

FOR FURTHER INFORMATION CONTACT: James G. Walters, Airspace Section, Airspace and Procedures Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone: (404) 763-7646.

SUPPLEMENTARY INFORMATION: Comments Invited

Interested parties are invited to participate in this proposed rule-making by submitting such written data, views or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy aspects of the proposal. Communications should identify the airspace docket and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made:

"Comments to Airspace Docket No. 89-ASO-21." The postcard will be date/time stamped and returned to the commenter. All communications received before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available for examination in the Office of the Assistant Chief Counsel for Southern Region, Room 652, 3400 Norman Berry Drive, East Point, Georgia 30344, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRM's

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Manager, Airspace and Procedures Branch (ASO-530), Air Traffic Division, P.O. Box 20636, Atlanta, Georgia 30320. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No. 11-2A which describes the application procedure.

The Proposal

The FAA is considering an amendment to § 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to amend the Clemson, SC, Transition Area. The increase in controlled airspace is required for protection of IFR aircraft executing a recently developed VOR/DME SIAP to

Runway 25 at the Clemson-Oconee County Airport. Section 71.181 of Part 71 of the Federal Aviation Regulations was republished in FAA Handbook 7400.6E dated January 3, 1989.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Aviation safety, Transition area.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, AND REPORTING POINTS

1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g) (Revised Public Law 97-449, January 12, 1983); 14 CFR 11.69.

§ 71.181 [Amended]

2. Section 71.181 is amended as follows:

Clemson, SC [Amended]

By changing the phrase in the existing description, " * * * within a 5-mile radius of Clemson-Oconee County Airport * * *" to read, " * * * within a 6.5-mile radius of Clemson-Oconee County Airport * * *" and by changing the phrase, "within 3 miles each side of the 099° bearing from the Clemson RBN * * *" to read, "within 4.5 miles each side of the 099° bearing from the Clemson RBN * * *"

Issued in East Point, Georgia, on May 8, 1989.

William D. Wood,

Acting Manager, Air Traffic Division,
Southern Region.

[FR Doc. 89-12200 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-13-M

FEDERAL TRADE COMMISSION

16 CFR Part 453

Trade Regulation Rule; Funeral Industry Practices

AGENCY: Federal Trade Commission.

ACTION: Request for public comment on petition by State of Texas for statewide exemption from trade regulation rule.

SUMMARY: The Federal Trade Commission seeks public comment on the request by the State of Texas for exemption from the Trade Regulation Rule concerning Funeral Industry Practices, 16 CFR Part 453. If the petition were granted, the FTC Funeral Rule would not be in effect in Texas, to the extent specified by the Commission, for as long as the state administers and enforces effectively the state requirements. To facilitate public consideration and comment, the Commission has summarized the information in the Texas petition. The Commission invites public comment on the petition generally and on certain questions specifically.

DATE: Public comments will be accepted until August 21, 1989.

ADDRESS: Comments should be captioned: "Texas Petition for Statewide Exemption from the Funeral Rule," FTC File No. 215-46, and should be submitted to the Office of the Secretary, Room 159, Federal Trade Commission, Washington, DC 20580.

Copies of the petition can be obtained from the Public Reference Room, Room 130, Federal Trade Commission, 6th Street and Pennsylvania Avenue, NW., Washington, DC 20580, (202) 326-2222.

A copy of the petition is also available for inspection at the FTC Dallas Regional Office, 100 North Central Expressway, Suite 500, Dallas, Texas 75201.

FOR FURTHER INFORMATION CONTACT: Carol Jennings, Attorney, Division of Marketing Practices, Bureau of Consumer Protection, Federal Trade Commission, Washington, DC 20580, (202) 326-3010.

SUPPLEMENTARY INFORMATION:

I. Introduction

On December 7, 1988, the Texas Funeral Service Commission filed a second petition for exemption from the State, of Texas from the FTC's Funeral Rule, 16 CFR Part 453.¹ An earlier

petition for exemption, filed on February 21, 1984 by the Texas State Board of Morticians (the predecessor to the Texas Funeral Service Commission), was denied by the Commission on December 4, 1986.²

Section 453.9 of the Funeral Rule provides:

If, upon application to the Commission by an appropriate state agency, the Commission determines that:

(a) There is a state requirement in effect which applies to any transaction to which this rule applies; and

(b) That state requirement affords an overall level of protection to consumers which is as great as, or greater than, the protection afforded by this rule; then the Commission's rule will not be in effect in that state to the extent specified by the Commission in its determination, for as long as the state administers and enforces effectively the state requirement.

Factors which will be considered by the Commission in determining whether an exemption is warranted include such things as the means available to the state to enforce its provisions, the existence of any private rights of action by an aggrieved consumer, and the scope and format of required price disclosures to funeral consumers.³

Exemption proceedings are conducted pursuant to § 1.16 of the Commission's Rules of Practice. In addition, the staff of the Bureau of Consumer Protection has published guidelines for petitions for state exemption from the Funeral Rule.⁴ These guidelines were not formally approved or adopted by the Commission; however, they represent the views of the staff of the Bureau of Consumer Protection. Specifically, the guidelines explain: (1) The materials which should comprise a complete petition for state exemption from the Funeral Rule; (2) the procedures required by Commission rules for considering exemption applications; and (3) the procedures staff will recommend the Commission follow in granting, denying, or revoking exemptions from the Funeral Rule.

The exemption guidelines also state that additional procedures for public participation, such as oral hearings or a rebuttal comment period, may be scheduled if necessary for a full and fair presentation of significant factual issues.⁵ A determination as to whether

² 51 FR 43746 (December 4, 1986).

³ Statement of Basis and Purpose, 47 FR 42260, 42287 (September 24, 1982).

⁴ 50 FR 12521 (March 29, 1985).

⁵ 50 FR at 12525-26.

¹ The Texas petition has been placed on the public record as Document No. XXIII-15, FTC File No. 215-46.

such procedures will be necessary in this instance has not been made at this time. Any interested party may request that the Commission schedule such additional proceedings. Such requests should be sent to the Office of the Secretary and should set forth specific reasons why such additional proceedings are necessary to a full and fair presentation of relevant factual issues.

The Commission invites written public comment on the December 7, 1988 petition by the State of Texas for exemption from the FTC Funeral Rule.

II. The Texas Petition

A. Background

The first Texas exemption petition was filed on February 21, 1984, prior to the effective date of the Funeral Rule on April 30, 1984, and was supplemented by six additional filings that concluded on March 4, 1985.⁶ During the public comment period, which lasted from November 6, 1985 to January 27, 1986, comments were received from 11 parties, including: the Consumer Protection Division of the Office of the Attorney General of Texas; Mr. T. Grady Baskin, Jr., a former member of the Texas State Board of Morticians; five memorial societies; Consumers Union; the Gray Panthers of Austin; and two individual consumers.⁷ All of the commenting parties urged that the Commission deny the Texas exemption petition.

The petition was denied because the Commission concluded that Texas law failed to provide an overall level of protection to consumers as great as that provided by the Funeral Rule. Specifically, the Commission cited the following areas in which Texas law afforded consumers less protection than the Funeral Rule:⁸

1. Under Texas law, consumers who entered a funeral establishment and inquired about the availability of arrangements, but did not ask specifically about prices, might not be entitled to price disclosures as they would under the Funeral Rule. In addition, the state law covered only individual consumers, but not other entities such as memorial associations.

2. The Texas law did not define or limit the "services of funeral director and staff" which might be included in a

non-declinable fee. Thus, it did not prevent all tying arrangements that are prohibited under the Funeral Rule, and, as a result, consumers could be denied choice in the selection of funeral goods and services.

3. The Texas law did not mandate the timing of the provision of price lists and the itemized statement of goods and services selected to consumers. Thus, under Texas law consumers might not be provided with price disclosures prior to the selection of goods and services as required by the Funeral Rule.

The Commission noted that several commenters had alleged inadequate enforcement of the state law. However, the Commission determined that it need not address this issue since it had already determined that the petition should be denied because Texas law failed to provide consumers an overall level of protection as great as that afforded by the Funeral Rule. The Commission further noted that before an exemption petition could be granted, it would have to make a determination that the state law was administered and enforced effectively.⁹

B. Changes in Texas Law

The current Texas exemption petition states, in Exhibit E, that since the denial of the first exemption petition, "Texas has taken positive steps to correct any shortcomings in the state law and regulations." The following changes were cited:

1. The Texas mortuary law has been amended to define "prospective customer" as follows:

"Prospective customer" means any consumer who enters a funeral establishment and inquires about any funeral service, cremation, or merchandise. The funeral establishment may not make a distinction in providing funeral information to any customer regardless of any affiliation of the customer or whether the customer has a present need for the services or merchandise.¹⁰

The Texas statute requires that each customer or prospective customer be provided with itemized written price information.¹¹

The Funeral Rule requires that a general price list be provided to persons who inquire in person about funeral arrangements or the prices of funeral goods or services.¹² A "person" is

defined as "any individual, partnership, corporation, association, government or governmental subdivision or agency, or other entity."¹³

2. The regulations of the Texas Funeral Service Commission have been amended to define the "services of the funeral director and staff" (which may be a non-declinable fee) as follows:

"Other itemized services provided by the funeral home staff in Texas Civil Statutes, Article 4582b Section 1, S, shall include services of the funeral director and staff which are not included in the prices of other categories on the retail price list or written memorandum which may be furnished by a funeral provider in arranging and supervising a funeral, including but not limited to conducting the arrangement conference, planning the funeral, obtaining necessary permits, placing obituary notices and any other services offered by the funeral establishment."¹⁴

This is very similar to the FTC definition of "services of funeral director and staff," except that Texas has added the phrase "and any other services offered by the funeral establishment."¹⁵ The Texas regulation also contains an anti-tying provision that is virtually identical to § 453.4(b) of the Funeral Rule.¹⁶

3. With regard to the timing of the provision of price information, the Texas Funeral Service Commission has adopted the following regulation:

In order to provide the maximum protection to the consuming public, the presentation of required price lists and purchase agreements will be as follows:

(1) The retail price list, which includes the general price list, casket price list and outer burial enclosure price list, will be presented for retention to any consumer who inquires in person about any funeral service, cremation or merchandise and prior to the consumer viewing or selecting any merchandise or service.

(2) The written memorandum or funeral purchase agreement must be presented for retention to each person who arranges a funeral, cremation or other disposition of a dead human body upon the conclusion of the discussion of arrangements.¹⁷

The FTC Rule requires that a general price list be provided "upon beginning discussion either of funeral arrangements or of the selection of any

¹³ 16 CFR 453.1(n).

¹⁴ 22 TAC 203.17. The regulations of the Texas Funeral Service Commission (formerly the Texas State Board of Morticians) have been promulgated pursuant to VTCS, Article 4582b, Section 5.

¹⁵ 16 CFR 453.1(o). However, the FTC definition does not purport to be an exclusive list of the services that may be included within this fee. What is clearly excluded are services that are provided in connection with other items that the Rule requires to be separately listed on the price list.

¹⁶ 22 TAC 203.11(h).

¹⁷ 22 TAC 203.18.

⁶ The first Texas exemption petition and supplemental filings were placed on the public record as Document Nos. XXIII-2-7 and 13, FTC File No. 215-46.

⁷ The comments were placed on the public record as Document Nos. XXIV-24-29 and 31-37, FTC File No. 215-46.

⁸ 51 FR 43747-48.

⁹ 51 FR 43747.

¹⁰ Vernon's Texas Civil Statutes (hereafter VTCS), Article 4582b, Section 1.V.

¹¹ VTCS, Article 4582b, Section 3.H.22. See also 22 Texas Administrative Code (hereafter TAC) 203.18, described in section II(B)(3) below.

¹² 16 CFR 453.2(b)(4)(i).

funeral goods or funeral services,"¹⁸ and that casket and outer burial container price lists be provided upon beginning discussion of, and before showing, the merchandise.¹⁹ The FTC regulation requires that the itemized statement of goods and services selected ("written memorandum" in Texas nomenclature) be given to the customer upon conclusion of the arrangements discussion.²⁰

The Texas Funeral Service Commission asserts that as a result of these changes, "Texas law now provides an overall level of protection to consumers as great as or greater than the Funeral Rule," and "that the only criterion that remains to be addressed is whether the state law is being administered and enforced effectively."²¹ The Commission requests public comment on the issue of whether these recent changes in Texas law afford consumers protection as great as, or greater than, the protection afforded by the FTC's Funeral Rule.

C. Other Differences Between Texas Law and the FTC Funeral Rule

The three items discussed in section A, above, were the basis for the Commission's denial of the first Texas exemption petition. However, they were not then, and they are not today, the only areas of difference between Texas law and the FTC Funeral Rule.²²

1. Transactions Covered by FTC Rule and Texas Law

The Funeral Rule covers all funeral providers. The definition of a "funeral provider" is "any person, partnership or corporation that sells or offers to sell funeral goods and funeral services to the public."²³ Thus, the provisions of the Rule would extend to pre-need sellers who may not be licensed funeral directors.²⁴ The jurisdiction of the Texas Funeral Service Commission, however, extends only to funeral establishments, licensed embalmers, or funeral directors.²⁵ Comments filed by

the Consumer Protection Division of the Texas Attorney General's Office with regard to the first Texas exemption petition made clear that the Texas State Board of Morticians (predecessor to the Texas Funeral Service Commission) could not enforce state law against an unlicensed funeral provider.²⁶

The Commission requests public comment on the following questions: (a) Are there persons in Texas selling or offering to sell funeral goods and funeral services to the public on a pre-need basis, who would meet the FTC definition of a "funeral provider" and therefore be subject to the requirements of the FTC's Funeral Rule, but who would not be subject to the authority of the Texas Funeral Service Commission because they are not licensed funeral directors? (b) If the answer to (a) is "yes," and the Texas exemption petition were granted, would consumers of Texas be afforded significantly less protection than they now have with respect to pre-need funeral arrangements?²⁷

2. Required Price Itemization

The Funeral Rule requires that consumers be provided with a general price list, showing prices for 17 specified items of service or merchandise, a casket price list, and an outer burial container price list.²⁸ Texas law requires a retail price list which includes the prices of caskets and outer burial containers, and various other charges for services, facilities, and automotive equipment.²⁹ The essential differences between the federal and state requirements are that Texas does not require any descriptive information about the caskets or outer containers listed on the price list and does not require itemized prices for other preparation of the body, other use of facilities, and other automotive equipment. (The Texas statute does list a category of "other itemized services provided by the funeral establishment staff." However, the Texas regulations have defined this item as a professional services fee which, under both the

Funeral Rule and Texas law, may be made a non-declinable item.³⁰ Thus, it cannot be considered a catch-all category for other miscellaneous items of service, facilities or automotive equipment.) In addition, Texas law does not require that alternative containers be separately itemized on the retail price list. However, it does require that prices for alternative containers be included in the package prices for minimal services for direct cremation and immediate burial.

3. Required Disclosures

(a) Customer's right to choose only goods and services desired. The FTC Funeral Rule has required disclosures for both the general price list and the itemized statement concerning the customer's right to choose and pay for only the items desired. Texas requires a dual set of disclosures for each document. The disclosures required by the Texas Funeral Service Commission rules track the language required by the FTC. However, the Texas statute requires somewhat different wording, with a somewhat different meaning.

On the general price list, the Funeral Rule requires the following disclosure:

The goods and services shown below are those we can provide to our customers. You may choose only the items you desire. If legal or other requirements mean you must buy any items you did not specifically ask for, we will explain the reason in writing on the statement we provide describing the funeral goods and services you selected.³¹

The regulations of the Texas Funeral Service Commission require identical language.³² However, the Texas statute requires the following notice:

You may choose only the items you desire. If you are charged for items you did not specifically request, we will explain the reason for the charges on the written memorandum.³³

The FTC Funeral Rule requires the following disclosure on the itemized statement of goods and services selected that must be given to each customer upon conclusion of the arrangements conference:

Charges are only for those items that are used. If we are required by law to use any items, we will explain the reasons in writing below.³⁴

¹⁸ 16 CFR 453.2(b)(4)(i).

¹⁹ 16 CFR 453.2(b)(2)(i) and (3)(i).

²⁰ 16 CFR 453.2(b)(5).

²¹ FTC File No. 215-46, Document No. XXIII-15, Exhibit E.

²² Other areas of difference were noted in the request for public comment on the first exemption petition. 50 FR 46271. The Commission did not form any conclusions regarding these other differences. The denial of the first exemption petition merely states that the three items discussed therein "illustrate its conclusion that state law provides less protection than the Funeral Rule." 51 FR 43747.

²³ 16 CFR 453.1(j).

²⁴ However, the Rule would not cover such sellers if they were engaged in the "business of insurance." 16 CFR 453.8(c).

²⁵ VTCS, Article 4582b, Section 3.H.

²⁶ This letter was placed in the public record as Document No. XXIV-34, FTC File No. 215-46.

²⁷ In a letter to the Attorney General of Texas, dated December 20, 1988, FTC staff requested the views of the Consumer Protection Division on these and other issues raised by the current Texas exemption petition. This letter has been placed on the public record as Document No. XXIV-38, FTC File No. 215-46. Of course, if the Commission were to grant the Texas petition, the exemption could be a partial one that would extend only to those transactions regulated by the Texas Funeral Service Commission.

²⁸ 16 CFR 453.2(b) (2), (3) and (4).

²⁹ VTCS, Article 4582b, Sections 1.S, 3.H.22; 22 TAC 203.9, 203.17, and 203.18.

³⁰ VTCS, Article 4582b, Section 1.S; 22 TAC 203.17; compare with 16 CFR 453.1(o) and 453.2(b)(4)(iii)(C).

³¹ 16 CFR 453.4(b)(2)(i)(A).

³² 22 TAC 203.11(h)(2)(A)(i).

³³ VTCS, Article 4582b, Section 1.S.

³⁴ 16 CFR 453.4(b)(2)(i)(B).

Texas Funeral Service Commission regulations require identical language.³⁵ However, the Texas statute requires the following disclosure on the written memorandum:

Charges are made only for items that are used. If the type of funeral selected requires extra items, we will explain the reasons for the extra items in writing on this memorandum.³⁶

The Executive Director of the Texas Funeral Service Commission has stated that both sets of disclosures are required on both documents.³⁷

(b) *Cash advance items.* The FTC Funeral Rule requires that the following disclosure appear in immediate conjunction with the itemized price information:

This list does not include prices for certain items that you may ask us to buy for you, such as cemetery or crematory services, flowers, and newspaper notices. The prices for those items will be shown on your bill or the statement describing the funeral goods and services you selected.³⁸

Texas law requires the following notice on the retail price list: "Please note that there may be charges for items such as cemetery fees, flowers, and newspaper notices."³⁹

(c) *Mandatory professional services fee.* The Funeral Rule requires the following disclosure, if the fee for services of funeral director and staff is non-declinable:

This fee for our services will be added to the total cost of the funeral arrangements you select. (This fee is already included in our charges for direct cremations, immediate burials, and forwarding or receiving remains.)⁴⁰

Texas law has no comparable disclosure. However, both Texas regulations and the Funeral Rule require the following statement, which must appear between the second and third sentences of the general price list

disclosure concerning customer selection, set forth in section II(C)(3)(a) above, if the service fee is non-declinable: "However, any funeral arrangements you select will include a charge for our services."⁴¹

(d) *Embalming.* The Funeral Rule and the Texas regulations require virtually identical disclosures regarding embalming to appear on the general price list.⁴² However, the Funeral Rule also requires the following disclosure on the itemized statement of goods and services selected that must be given to each customer at the conclusion of the arrangements conference:

If you selected a funeral which requires embalming, such as a funeral with viewing, you may have to pay for embalming. You do not have to pay for embalming you did not approve if you selected arrangements such as a direct cremation or immediate burial. If we charged for embalming, we will explain why below.⁴³

Texas law does not require any disclosure concerning embalming to appear on the itemized statement (or "written memorandum") and apparently does not require written explanation of the reason for embalming.

4. Prior Approval for Embalming

Like the Funeral Rule, Texas law requires prior approval for embalming, or a reasonable effort to obtain such approval.⁴⁴ However, the Funeral Rule also provides that the customer need not pay for embalming performed without prior authorization if the customer selects funeral arrangements where the procedure is not needed. Texas has no comparable provision that would enable the customer to decline payment under such circumstances.

The Commission requests public comment on whether the differences between the Funeral Rule and Texas law with regard to price itemization, required disclosures, and prior approval for embalming are significant and would afford Texas consumers less protection than they now enjoy if the exemption petition were granted. In other respects, provisions of Texas law are identical, or nearly identical, to provisions of the Funeral Rule. These include: telephone price disclosures;⁴⁵ required misrepresentations;⁴⁶ required

purchases;⁴⁷ and comprehension of disclosures.⁴⁸ Therefore, these areas do not raise any issue with regard to the level of protection provided by state law.

D. Provisions of Texas Law Not Included in the FTC Funeral Rule

The exemption petition points out several state requirements not included in the FTC Funeral Rule:

1. Each written memorandum (or itemized statement) must include the name, mailing address, and telephone number of the Texas Funeral Service Commission and a statement indicating that complaints may be directed to the Commission.⁴⁹

2. Funeral establishments must display their least expensive casket in the same general manner as other caskets are displayed. In addition, they must display five or more adult caskets in order to permit reasonable selection.⁵⁰

3. Funeral directors must disclose to customers the different colors in which their three least expensive caskets are available, and arrange to provide the customer with a casket in the requested color, if the casket can be obtained within 12 hours.⁵¹

4. Funeral directors may not state or imply that a customer's concern with the cost of any funeral service or merchandise is improper or indicates a lack of respect for the deceased.⁵²

5. Funeral directors may not take custody of a body without authorization or refuse to promptly release a body to a person authorized to make funeral arrangements.⁵³

6. Casket display rooms must be designed and utilized to allow the public to make a private inspection and selection.⁵⁴

7. Any person making funeral arrangements must explain to the customer or prospective customer that a contractual agreement for funeral services or merchandise may not be entered into before the presentation of the retail price list to that person.⁵⁵

8. The Texas Funeral Service Commission is required to prepare and disseminate to the general public information explaining matters relating to funerals, describing the regulatory

³⁵ 22 TAC 203.11(h)(2)(A)(iii).

³⁶ VTCS, Article 4582b, Section 1.T.

³⁷ Letter dated January 25, 1989, from Larry A. Farrow, Executive Director, Texas Funeral Service Commission, to Carol Jennings, Funeral Rule Coordinator, FTC. This letter has been placed on the public record as Document No. XXIII-17, FTC File No. 215-46. Mr. Farrow's letter was written in response to a letter of January 10, 1989, from Carol Jennings requesting some clarification of the exemption petition as well as additional information relevant to its consideration. This letter has been placed on the public record as Document No. XXIII-16, FTC File No. 215-46.

³⁸ 16 CFR 453.2(b)(4)(i)(D).

³⁹ VTCS, Article 4582b, Section 1.S. Both the Texas regulation and the Funeral Rule require the following statement, at the end of the cash advance disclosure, if the funeral provider adds a charge to cash advance items: "We charge you for our services in buying these items." 16 CFR 453.3(f)(2); 22 TAC 203.11(f)(2).

⁴⁰ 16 CFR 453.2(b)(4)(iii)(C).

⁴¹ 16 CFR 453.4(b)(2)(i)(A); 22 TAC

203.11(h)(2)(A)(i).

⁴² 16 CFR 453.3(a)(2)(ii); 22 TAC 203.11(a)(2)(B).

⁴³ 16 CFR 453.5(b).

⁴⁴ 16 CFR 453.5(a); VTCS, Article 4582b, Section 3.H.11; 22 TAC 203.19 and 203.21(b)(1).

⁴⁵ Compare 16 CFR 453.2(b)(1) with 22 TAC 203.8.

⁴⁶ Compare 16 CFR 453.3 with 22 TAC 203.11 (a)-(f).

⁴⁷ Compare 16 CFR 453.4 with 22 TAC 203.11 (g) and (h).

⁴⁸ Compare 16 CFR 453.7 with 22 TAC 203.115.

⁴⁹ VTCS, Article 4582b, Section 1.T.

⁵⁰ VTCS, Article 4582b, Section 4.C.5.

⁵¹ VTCS, Article 4582b, Section 3.H.18.

⁵² VTCS, Article 4582b, Section 3.H.21.

⁵³ VTCS, Article 4582b, Section 3.H.11.

⁵⁴ 22 TAC 203.10.

⁵⁵ VTCS, Article 4582b, Section 3.H.22.

functions of the Commission, and describing the Commission's procedure for handling consumer complaints.⁵⁶ The Texas Funeral Service Commission has published such a brochure, attached to the exemption petition as Exhibit K,⁵⁷ and Texas funeral establishments are required to have these brochures prominently displayed.⁵⁸

9. Funeral establishments must retain records, including price lists and the written memoranda, for a minimum of two years.⁵⁹

The Commission seeks public comment on how any or all of these provisions in Texas law that are not included in the Funeral Rule affect the level of protection provided consumers by the state law.

E. Administration and Enforcement of the State Laws.

The Texas Funeral Service Commission is composed of nine commissioners appointed by the Governor and confirmed by the Senate. The term of office is six years. Five of the nine commissioners must be licensed funeral directors and/or embalmers and must have five consecutive years of experience immediately preceding their appointment. The remaining four members of the commission represent the public interest and may not be subject to the regulatory authority of the commission.⁶⁰

1. Staffing

The commission employs a full-time staff of seven, including an executive director, a deputy director/chief investigator, a director of licensing and administration, two field inspectors, an administrative technician/secretary, and an administrative clerk. In addition, the commission contracts with outside legal counsel, a financial consultant, and a licensed private investigator who investigates a minimum of two consumer complaints each month.⁶¹

2. Funding

The commission is funded by the Texas legislature through general appropriations. Funding for the commission for the past three years has been as follows: FY 1987, \$222,871; FY 1988, \$321,565; and FY 1989, \$321,004. The additional funding for FY 1988 and 1989 was requested for increased law enforcement positions and activities.⁶²

3. Enforcement Procedures

The commission both initiates and receives complaints against licensees. The commission is required to inspect each licensed funeral establishment once each year.⁶³ According to the petition, establishments revealing serious deficiencies are usually reinspected within 30-90 days. Formal charges are filed against repeat offenders and the commission normally will assess an administrative penalty of \$250 or more against the license of the establishment or the license of the funeral director in charge.⁶⁴

The inspection includes a review of the funeral home's price lists and its written memorandum or funeral purchase agreement (itemized statement) to ensure that it contains all required items. The inspector then randomly selects and inspects five case files completed since the date of the last inspection. Any forms determined not to be in compliance with state requirements are forwarded to the Austin office of the Texas Funeral Service Commission. A letter is sent to the funeral home explaining the deficiencies, and the funeral home is required to submit revised forms within 14 days. Each of the two field inspectors conducts 650-700 inspections annually, and an average of four to six inspections each day.⁶⁵

According to the petition, all complaints are personally reviewed by the executive director. Those which allege a violation of the statute or rules are assigned either to the chief investigator or the contract investigator. Complaints are investigated through a combination of telephone inquiries; travel by the investigator to the location of the complaint; interviews with the complainant, funeral home employees,

and other witnesses; and investigation of funeral home files.⁶⁶

When an investigation has been completed, it is brought to the Complaint Review Committee, comprised of the commission chairman, the executive director, the outside legal counsel, and the chief investigator. This committee reviews the case and makes one of the following recommendations: (1) Request further investigation; (2) close the case for insufficient evidence; (3) recommend that an agreed order be negotiated; (4) recommend that an administrative penalty be assessed; or (5) recommend that formal charges be filed and a formal hearing be scheduled. The commission may accept or reject any of these recommendations. Final action on complaints must be taken in an open meeting.⁶⁷

4. Sanctions

The Texas Funeral Service Commission has authority to cancel, revoke, suspend, place on probation and/or assess an administrative penalty against any licensee subject to its regulatory authority.⁶⁸ Administrative penalties may be in an amount not less than \$100 or more than \$5,000 for each act of violation of the statute or regulations promulgated pursuant to the statute.⁶⁹ The commission is guided in its assessment of administrative penalties by a schedule of penalties set forth in its own regulations.⁷⁰ The suggested range of penalties for violations of state law provisions that are comparable to provisions of the FTC Funeral Rule is generally \$500 to \$5,000 or \$250 to \$5,000.⁷¹ Finally the Texas statute makes certain violations a Class B misdemeanor and authorizes the commission to file a complaint with the appropriate governmental authorities. The commission is further authorized to sue a funeral director or funeral establishment for appropriate injunctive relief.⁷²

Under the Federal Trade Commission Act, the FTC may seek civil penalties in a United States district court against any funeral provider found to be in violation of the Funeral Rule. Such civil penalty shall be not more than \$10,000 per violation.⁷³

⁵⁶ VTCS, Article 4582b, Section 6E; 22 TAC 201.9(a).

⁵⁷ This brochure explains what must be done when a death occurs, the available methods of disposition, embalming and the fact that embalming is not required by Texas law, organ donation, ways of selecting a funeral director, how one may obtain information regarding funeral costs, state law with respect to advertising and solicitation by funeral directors, pre-need funeral contracts, and complaint procedures. It makes no mention of the FTC Funeral Rule.

⁵⁸ 22 TAC 201.9(c).

⁵⁹ VTCS, Article 4582b, Section 3.H.25; 22 TAC 203.20 and 203.21(b)(2). The FTC record keeping requirement is only one year. 16 CFR 453.8.

⁶⁰ VTCS, Article 4582b, Section 2.A.

⁶¹ Exhibit G of the Texas exemption petition.

⁶² *Id.*

⁶³ VTCS, Article 4582b, Section 4.G.

⁶⁴ Exhibit G of the Texas exemption petition.

⁶⁵ Letter dated January 25, 1989 from Larry A. Farrow, Executive Director, Texas Funeral Service Commission, to Carol Jennings, Funeral Rule Coordinator, FTC, Document No. XXIII-17, FTC File No. 215-46.

⁶⁶ Exhibit G of the Texas exemption petition; letter from Larry A. Farrow to Carol Jennings, January 25, 1989.

⁶⁷ Exhibit G of the Texas exemption petition.

⁶⁸ VTCS, Article 4582b, Sections 3.H, 4.D.2(c), 6 and 6G.

⁶⁹ VTCS, Article 4582b, Section 6G(b).

⁷⁰ 22 TAC 201.11.

⁷¹ 22 TAC 201.11(a)(2), (5), (15) and (23).

⁷² VTCS, Article 4582b, Section 7.

⁷³ 15 U.S.C. § 45(m)(1)(A).

5. Recent Enforcement History of the Texas Commission

Exhibit H of the exemption petition is a statistical summary, for fiscal years 1986-88, of establishment inspections, complaints received or initiated by the commission, and actions taken by the commission. Complaints that alleged violation of state law or regulations enforced by the commission numbered 60 in 1987 and 55 in 1988. The agency itself initiated (as a result of its funeral establishment inspections) 11 complaints in 1987 and 106 complaints in 1988. Three complaints were resolved through commission arbitration in 1987 and eight in 1988. There were 23 formal disciplinary hearings in 1987 and 15 in 1988.⁷⁴ There were four informal disciplinary hearings in 1987 and 29 in 1988. Two agreed orders were issued in 1987 and 20 in 1988. License revocations, suspensions or probations numbered 17 in 1987 and 25 in 1988. In 1988, the first full year that the commission had authority to assess administrative penalties, 132 penalties were assessed for a total dollar amount of \$49,900.

Exhibit I to the petition summarizes the complaints received during fiscal years 1987 and 1988, including the allegations and the final commission action. There are 60 complaint summaries for fiscal year 1987. Eighteen of the 60 appear to involve allegations of conduct that would also constitute violations of the FTC Funeral Rule. The primary allegations in these complaints can be broken down as follows: 12 alleged failure to provide the customer with required price lists or the written memorandum (itemized statement of goods and services selected); five alleged embalming without authorization; and one involved failure to properly complete the funeral purchase agreement (itemized statement). Two complaints involved the same funeral home.

The disposition of these complaints was as follows: Three resulted in formal hearings; in one case (where the funeral home had been the subject of two complaints) the license was revoked; the other two hearings resulted in dismissal. One case was closed after an informal hearing. One case was resolved by agency arbitration, and another by an agreed order with the funeral home and

license suspension with probation. Two cases were closed with a warning letter to the funeral home. Five were closed because of insufficient evidence, witness refusal to testify, or lack of substantiation for the complaints. In another case, the allegations were disproved by the investigation. One case was closed because the establishment was no longer in business and the owner could not be located. Finally, two cases of alleged unauthorized embalming were closed because the embalming had been ordered by the Justice of the Peace.

There were 161 complaint summaries for 1988, of which 21 contained allegations that appeared to involve violations of the Funeral Rule as well as of Texas law. The allegations can be broken down as follows: there were 17 allegations of failure to provide a price list or itemized statement (written memorandum); there were three charges of embalming performed without authorization; one complaint alleged a charge for an item not ordered; and one alleged a misrepresentation. (One complaint alleged both failure to provide a price list and embalming without authorization.)

The disposition of these 21 complaints was as follows: fines were assessed in six cases (three for \$500 and three for \$250; in addition there were agreed orders in two instances); six of these matters were closed because of insufficient evidence or lack of substantiation; in one matter the complaint was withdrawn; in two cases there was a license suspension with probation (also an agreed order in one instance); six matters are still under investigation.

FTC staff requested copies of the case files for 37 complaints that appeared to involve conduct that would violate the FTC Funeral Rule as well as Texas law. Because this request entailed an extensive amount of photocopying, it was agreed between FTC staff and the Executive Director of the Texas Funeral Service Commission that 20 case files would be submitted. These case files have been placed on the public record.⁷⁵ In addition, closed case files are available for public inspection at the office of the Texas Funeral Service Commission, 8100 Cameron Road, Building B, Suite 550, Austin, Texas 78753.

⁷⁵ The FTC request is Document No. XXIII-16, FTC File No. 215-46. The Texas Funeral Service Commission response, including the case files, is Document No. XXIII-17, FTC File No. 215-46.

6. Prior Allegations of Non-Enforcement by the Texas State Board of Morticians

In September 1984, after the filing of the first Texas exemption petition, the Commission received from Mr. Grady Baskin, Jr., then a consumer member of the State Board of Morticians, the results of an investigation in which he had personally surveyed funeral homes in the Dallas and Houston areas to check for compliance with state law price disclosure requirements.⁷⁶ The survey had been conducted between June and August 1984, and was undertaken with the approval of the Texas Attorney General's office. Posing as a consumer who anticipated the need to make funeral arrangements for a family member in the near future, Mr. Baskin visited 24 funeral homes to request retail price lists and other price information. He was able to discuss funeral arrangements at 18 of these funeral homes. Only one funeral home was found by Mr. Baskin to be in full compliance with state law. No enforcement actions were brought by the State Board as a result of the Baskin survey.⁷⁷ However, Mr. Baskin states he was informed by the Attorney General's office that as a Board member, he could not testify in any Board proceeding.⁷⁸

7. FTC Funeral Rule Enforcement Actions in Texas

The FTC's Dallas Regional Office has brought six enforcement actions resulting from independent investigations of some of the funeral homes surveyed by Mr. Baskin. Four of these have resulted in consent agreements with civil penalties ranging from \$10,000 to \$30,000.⁷⁹ In one

⁷⁶ This document was placed on the public record, in FTC File No. 215-46, as Document No. XXIII-10. Mr. Baskin's comments, opposing the first Texas exemption petition, are on the public record as Document Nos. XXIV-35, 36, and 37, also in FTC File No. 215-46. The Texas price disclosure requirements that were the subject of this compliance check had gone into effect September 1, 1983. Of course, the FTC Funeral Rule, effective April 30, 1984, was also in force at the time of Mr. Baskin's investigation.

⁷⁷ Document No. XXIV-35, FTC File No. 215-46. Letter of January 25, 1989, from Larry A. Farrow, Executive Director, Texas Funeral Service Commission, to Carol Jennings, Funeral Rule Coordinator, FTC, Document No. XXIII-17, FTC File No. 215-46.

⁷⁸ Document No. XXIV-35, FTC File No. 215-46.

⁷⁹ *U.S. v. Troy Suggs Funeral Home*, No. CA3-87-1258-G (N.D. Tex. May 20, 1987) (civil penalty of \$20,000); *FTC v. Crane Rhoton Services Corporation*, No. CA-3-87-1545-T (N.D. Tex. June 13, 1988) (civil penalty of \$30,000); *U.S. v. Ware Crest, Inc.*, No. CA4-88-437-K (N.D. Tex. July 11, 1988) (civil penalty of \$10,000); and *U.S. v. Funeral Corporation Texas*, No. CA4-8929 E (N.D. Tex. January 11, 1989) (civil penalty of \$20,000).

⁷⁴ The commission's authority to assess administrative penalties began on September 1, 1987. (Letter dated February 27, 1989, to Carol Jennings, FTC Funeral Rule Coordinator, from Larry A. Farrow, Executive Director, Texas Funeral Service Commission, Document No. XXIII-18, FTC File No. 215-46.) As a result the commission began to utilize administrative penalties and/or agreed orders to resolve complaints whenever possible to avoid time consuming and costly formal hearings.

contested matter, the U.S. District Court for the Northern District of Texas, Dallas Division, recently granted the FTC's motion for summary judgment, awarding a permanent injunction and a civil penalty of \$80,000.⁸⁰ The sixth case is currently in litigation in Houston.⁸¹

8. Enforcement Action by Texas Attorney General's Office

In 1987 the Consumer Protection Division of the Texas Attorney General's office filed an action in state court, under the Texas Deceptive Trade Practices Act and the FTC Funeral Rule,⁸² against the Thomae-Garza Funeral Directors of San Benito and Elsa, Texas, and Henry Thomae, individually.⁸³ The Consumer Protection Division requested and received assistance from the FTC staff in its prosecution of this case.⁸⁴ The court entered a directed verdict for the defendant, citing failure of the plaintiff to notify the defendant seven days prior to the filing of the lawsuit and further stating that there was insufficient evidence under the pleadings to raise an issue to go to the jury.⁸⁵ An Assistant Attorney General for the Consumer Protection Division stated she believed the ruling to be in error, but that the state was not in a position to devote additional resources to an appeal.⁸⁶

⁸⁰ *FTC v. Dudley M. Hughes Funeral Co.*, No. CA3-87-1546-G (N.D. Tex. February 7, 1989).

⁸¹ *FTC v. Nidoy Funeral Home, Inc.*, No. 11-88-2808 (S.D. Tex., filed August 15, 1988).

⁸² In a letter of January 24, 1986 to the FTC, Mr. H. Clyde Farrell, Assistant Attorney General of Texas and Chief of the Consumer Protection Division, stated that under § 17.46(c)(1) of the Texas Deceptive Trade Practices Act, the Consumer Protection Division could enforce the FTC Funeral Rule through the state courts. He further stated that if Texas were granted an exemption from the Funeral Rule, however, a legal issue would exist as to whether the FTC Rule could be enforced by the Consumer Protection Division. For this and other reasons, the Consumer Protection Division opposed the granting of the first Texas exemption petition. Document No. XXIV-34, FTC File No. 215-46. Commission staff has written to the Texas Attorney General to request the views of the Consumer Protection Division on the current Texas exemption petition. This letter has been placed on the public record as Document No. XXIV-38.

⁸³ Henry Thomae is a current member of the Texas Funeral Service Commission.

⁸⁴ In a letter of August 3, 1987 to Carol Jennings of the FTC, Patricia Robards, Assistant Attorney General for the Consumer Protection Division, requested review of price lists that had been provided to her office by the Thomae-Garza Funeral Directors. In a staff opinion letter dated August 5, 1987, Ms. Jennings enumerated various areas of non-compliance with the Funeral Rule in the Thomae-Garza documents. Both the request and the response have been placed on the public record as Document No. XXVIII-304, FTC File No. 215-46.

⁸⁵ *State of Texas v. Henry Thomae*, No. 86-133-C (Tex. District Court, 197th Judicial Court, Cameron County, August 17, 1987).

⁸⁶ Letter of September 3, 1987 to Carol Jennings, FTC, from Patricia Robards, Assistant Attorney

9. Private Right of Action

The Texas Deceptive Trade Practices Act allows a consumer to file an action in state court if the consumer has suffered actual damages from an unfair or deceptive practice by a funeral provider. A prevailing consumer can be awarded actual damages, court costs, attorney's fees, and, in some cases, double damages.⁸⁷ The consumer may also seek remedies through actions in contract, tort, equity or criminal sanctions.

The Commission seeks public comment on the issue of whether the Texas law is administered and enforced effectively.

III. Questions for Public Comment

1. Do the recent changes in Texas law (summarized in section II(B) above) afford consumers protection as great as, or greater than, the protection afforded by the FTC's Funeral Rule?

2. (a) Are there persons in Texas selling or offering to sell funeral goods and funeral services to the public on a pre-need basis who would meet the FTC definition of a "funeral provider," and therefore be subject to the requirements of the FTC Funeral Rule, but who would not be subject to the authority of the Texas Funeral Service Commission because they are not licensed funeral directors?

(b) If the answer to 2(a) is "yes," and the Texas exemption petition were granted, would consumers of Texas be afforded significantly less protection than they now have with respect to pre-need funeral arrangements?

3. Are there differences between the Funeral Rule and Texas law with regard to price itemization, required disclosures, and prior approval for embalming (summarized in sections II(C) (2), (3), and (4) above) significant, and would they afford Texas consumers

General for the Consumer Protection Division. This letter, and other documents pertaining to this case, including depositions, have been placed on the public record as Document No. XXIV-39, FTC File No. 215-46. The Texas Funeral Service Commission was fully aware of this case, and Mr. Farrow, Executive Director of the Commission, and one of the Commission inspectors were subpoenaed and appeared as prosecution witnesses in the proceeding. Mr. Farrow states that the Texas Funeral Service Commission did not itself take any action with regard to this funeral home because the Attorney General's office did not share its discovery in the case, and because any commission action would be appealable to the same state court which had dismissed the action by the Consumer Protection Division. Document No. XXIII-17, FTC File No. 215-46.

⁸⁷ Tex. Bus. Code Ann., Section 17.50. The Texas mortuary law specifically states that the act does not affect any remedy or enforcement power under other laws. VTCS, Article 4582b, Section 3.H.

less protection than they now enjoy if the exemption petition were granted?

4. How do other provisions in Texas law that are not included in the Funeral Rule (summarized in section II(D) above) affect the level of protection provided consumers by the state law?

5. Is the Texas law administered and enforced effectively?

6. Should the Commission grant the petition by the State of Texas for statewide exemption from the Funeral Rule?

List of Subjects in 16 CFR Part 453

Funerals, Funeral homes, Price disclosures, Trade practices.

By direction of the Commission.

Donald S. Clark,

Secretary.

[FR Doc. 89-12160 Filed 5-19-89; 8:45 am]

BILLING CODE 6750-01-M

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Secretary

24 CFR Parts 25 and 203

[Docket No. R-89-1431; FR-2491]

RIN 2502-AE52

Actions to Reduce Losses in FHA Insurance Programs

AGENCY: Office of the Secretary, HUD.

ACTION: Proposed rule.

SUMMARY: This rule proposes to implement section 407(b) of the Housing and Community Development Act of 1987. The rule would require a mortgagee, upon notification by the FHA Commissioner that it had a higher than normal rate of early serious defaults and claims during the preceeding year, to submit a report to the Commissioner and, if applicable, a plan and timetable for any necessary corrective action.

DATE: Comment due date: July 21, 1989.

ADDRESS: Communications concerning this proposed rule should be identified by the above docket number and title and comments should be filed with the Rules Docket Clerk, Office of the General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410. Copies of written views or comments will be available for public inspection and copying during the hours of 8:00 a.m. to 5:30 p.m. at the above address.

FOR FURTHER INFORMATION CONTACT: William Heyman, Director, Office of

Lender Activities and Land Sales Registration, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410. Telephone (202) 755-6924. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION: The information collection requirements contained in this rule have been submitted to the Office of Management and Budget (OMB) for review under the Paperwork Reduction Act of 1980. No person may be subjected to a penalty for failure to comply with these information collection requirements until they have been approved and assigned an OMB control number. The OMB control number, when assigned, will be announced by separate notice in the *Federal Register*. Public reporting burden for the collection of information requirements contained in this rule are estimated to include the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Information on the estimated public reporting burden is provided under the Preamble heading, *Findings and Certifications*. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Housing and Urban Development, Rules Docket Clerk Room 10276, 451 Seventh Street, SW., Washington, DC 20410; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20530.

Section 407(b) of the Housing and Community Development Act of 1987 adds a new section 533 to the National Housing Act. This section directs the Secretary of HUD to review, at least annually, the rate of early serious defaults and claims involving mortgagees servicing or originating mortgages under the National Housing Act. A mortgagee experiencing a rate of early serious defaults or claims during the preceding year that is higher than normal for its area would be required to submit a report that explains the reasons for the high rate of early serious defaults and claims and, if applicable, sets forth a plan and timetable for corrective action. A mortgagee that fails to submit the required report, or to carry out the plan of corrective action, may be suspended from participation in FHA mortgage insurance programs.

This rule would implement section 407(b) by setting forth its requirements in a new § 203.8 to be added to 24 CFR Part 203. Under this proposed addition,

in order to be approved for continued participation in the HUD-FHA mortgage insurance programs, both single family and multifamily, a mortgagee must, if notified by the Commissioner that it had a rate of early serious defaults and claims on FHA-insured mortgages during the preceding year which was higher than the normal rate for the geographic area or areas in which it does business, submit a report to the Commissioner within 60 days. The report must contain an explanation for the above normal rate of early serious defaults and claims and, if applicable, a plan for corrective action with regard to mortgages in default and its mortgage processing system in general. The mortgagee must also submit a timeframe within which any necessary corrective action will be begun and completed. If the FHA Commissioner does not agree with this timeframe or plan, a mutually agreeable timeframe and plan will be determined. Mortgages in default for 90 or more consecutive days within one year after endorsement or mortgages on which the Commissioner has paid a claim within 18 months after endorsement are to be considered as in early serious default or as having resulted in an early claim.

Section 407(b) also provides for suspension from participation in FHA mortgage insurance programs in cases of noncompliance with its requirements. The proposed rule would implement this provision by adding, as a ground for an administrative action by the Mortgagee Review Board, a failure to meet section 407(b) requirements (24 CFR 25.9). The initial sanction for noncompliance would include reprimand, probation and suspension. Further failure to take action under the initial sanction could result in withdrawal of approval as a HUD-FHA mortgagee.

The new law (section 407(b)), and this proposed rule, applies to approval of all HUD-FHA mortgagees—multifamily as well as single family, coinsured as well as fully insured. Because of the rule's broad scope and the express authority to impose administrative sanctions, full public discussion of its implementation is important. The Department invites public comment on the proposed rule and especially invites suggestions on the more detailed issues and questions which later will have to be addressed in developing specific administrative requirements. Typical questions which must be addressed are:

1. What items should be required in the mortgagee's report? At the very least, it would seem that the report would contain the lender's analysis of the mortgages in serious default, or in

early claims status and, based upon the results of the analysis, an explanation of the changes in origination and underwriting procedures and policies that the lender will undertake to reduce its defaults and claims.

2. Should HUD require the lender's report to include an analysis of its servicing and quality control functions?

3. Should HUD require the lender's report to contain organizational and administrative information, such as the location and structure of its underwriting staff, the compensation system for production and underwriting staff, etc.?

Findings and Certifications

Environmental considerations. A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations at 24 CFR Part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969. The Finding of No Significant Impact is available for public inspection during regular business hours in the Office of the Rules Docket Clerk, Office of the General Counsel, Department of Housing and Urban Development, Room 10276, 451 Seventh Street, SW., Washington, DC 20410.

Executive Order 12291. This rule does not constitute a "major rule" as that term is defined in section 1(d) of the Executive Order on Federal Regulations issued by the President on February 17, 1981. An analysis of the rule indicates that it does not (1) have an annual effect on the economy of \$100 million or more; (2) cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (3) have a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Regulatory Flexibility Act. In accordance with 5 U.S.C. 605(b) (the Regulatory Flexibility Act), the undersigned hereby certifies that this rule does not have a significant economic impact on a substantial number of small entities. The rule applies equally to small and large entities. If anything, carrying out any necessary corrective actions should be less complex and easier for smaller entities. In addition, the statute is mandatory, providing little (if any) room for distinguishing between large and small entities in its implementation.

Semiannual Agenda. This rule was listed as Item No. H-28-88 (Sequence No. 930) in the Department's Semiannual Agenda of Regulations published on April 24, 1989 (54 FR 16708, 16722) pursuant to Executive Order 12291 and the Regulatory Flexibility Act.

Executive Order 12612, Federalism. The General Counsel, as the Designated Official under section 6(a) of Executive Order 12612, *Federalism*, has determined that the policies contained in this rule do not have federalism implications and, thus, are not subject to

review under the Order because the rule merely provides, at statutory direction, a reporting requirement for certain FHA mortgagees who are receiving the benefits of participation in already-established FHA insurance programs.

Executive Order 12606, the Family. The General Counsel, as the Designated Official under Executive Order 12606, *the Family*, has determined that this rule does not have a potential significant impact on family formation, maintenance, and general well-being, and, thus, is not subject to review under

the Order. In addition to reducing FHA losses, its aim is to prevent unnecessary and wasteful defaults by mortgagors, especially homeowners.

Information collection. The collection of information requirements contained in this rule have been submitted to OMB for review under section 3504(h) of the Paperwork Reduction Act of 1980. Section 203.8 of this rule has been determined by the Department to contain collection of information requirements. Information on these requirements is provided as follows:

ESTIMATED REPORTING BURDEN OF PROPOSED RULE

New requirement	Description of information collection	Form used	Number of respondents & number of responses per respondent
Actions to reduce losses in FHA programs; Section 407(b) of the Housing & Community Development Act of 1987, Section 203.8.	Prepare & submit report and description of proposed corrective action with respect to early serious defaults and claims in connection with FHA-insured mortgages.	No prescribed form.....	200 mortgagees (1 response each).
Hours per response and total annual hours	Average cost per respondent	Estimated annually	
4 hours (800 hours)	\$50 per hour (average cost per hour for staff time).	\$40,000	

List of Subjects

24 CFR Part 25

Administrative practice and procedure, Mortgages, Organization and functions (Government agencies).

24 CFR Part 203

Home improvement, Loan programs: housing and community development, Mortgage insurance, Solar energy.

Accordingly, 24 CFR Parts 25 and 203 are proposed to be amended as follows:

PART 25—MORTGAGEE REVIEW BOARD

1. The authority citation for 24 CFR Part 25 would be revised to read as follows:

Authority: Sec. 211, National Housing Act (12 U.S.C. 1715b); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

2. Section 25.9 would be amended by adding a new paragraph (x) to read as follows:

§ 25.9 Grounds for an administrative action.

(x) Failure to submit a report required under 24 CFR 203.8 within the time determined by the Commissioner, or to commence or complete a plan for corrective action under that section within the timeframe agreed upon by the Commissioner may result in initial

sanctions under 24 CFR 25.5(a)–(c). Failure to take the action required under the initial sanction may result in an action under 24 CFR 25.5(d).

PART 203—MUTUAL MORTGAGE INSURANCE AND REHABILITATION LOANS

3. The authority citation for 24 CFR Part 203 would continue to read as follows:

Authority: Secs. 203 and 211, National Housing Act (12 U.S.C. 1709, 1715b); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)). In addition, Subpart C is also issued under sec. 230, National Housing Act (12 U.S.C. 1715u).

4. 24 CFR Part 203 would be amended by adding a new § 203.8 to read as follows:

§ 203.8 Report requirements.

If a mortgage approved for participation in the HUD-FHA insurance programs under §§ 203.1 through 203.7 of this part is notified by the Commissioner that it had a rate of early serious defaults or early claims on FHA-insured mortgages during the preceding year or during recent years which was higher than the normal rate for the geographic area or areas in which it does business, it shall submit a report, within 60 days, containing an explanation for the above normal rate of early serious defaults or early claims and, if applicable, a plan for corrective action with regard to

mortgages in default and its mortgage-processing system in general. It shall also submit a timeframe within which any necessary corrective action will be begun and completed. If the Commissioner does not agree with this timeframe or plan, a mutually agreeable timeframe and plan will be determined. Mortgages in default for 90 or more days within one year after endorsement or mortgages on which the Commissioner has paid a claim within 18 months after endorsement are to be considered as in early serious default or as having resulted in an early claim.

Date: May 1, 1989.

Jack Kemp,

Secretary.

[FR Doc. 89-12133 Filed 5-19-89; 8:45 am]

BILLING CODE 4210-32-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 100

[CGD 05-89-28]

Special Local Regulations for Marine Events, Chesapeake Challenge; Chesapeake Bay, Sandy Point, MD

AGENCY: Coast Guard, DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard is proposing special local regulations for the Chesapeake Challenge Powerboat Race to be held on the Chesapeake Bay, between Sandy Point State Park, Baltimore Light (LLNR 7365), and Upper Chesapeake Bay Light Buoy 3 (LLNR 7665), from 10:00 a.m. to 3:00 p.m., on September 16, 1989. The effect of these regulations will be to restrict general navigation in the regulated area for the safety of spectators and participants. These regulations are needed to provide for the safety of life, limb, and property on the navigable waters during the event.

DATE: Comments must be received on or before July 6, 1989.

ADDRESSES: Comments should be mailed or hand carried to Commander (bb), Fifth Coast Guard District, 431 Crawford Street, Portsmouth, Virginia 23704-5004. The comments will be available for inspection and copying at Room 209 of this address. Normal office hours are between 8:00 a.m. and 4:30 p.m., Monday through Friday, except holidays.

FOR FURTHER INFORMATION CONTACT: Billy J. Stephenson, Chief, Boating Affairs Branch, Fifth Coast Guard District, 431 Crawford Street, Portsmouth, Virginia 23704-5004 (804) 398-6204.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this rulemaking by submitting written views, data, or arguments. Persons submitting comments should include their names and addresses, identify this notice (CGD 05-89-28) and the specific section of the proposal to which their comments apply. Reasons should be given for each comment. The regulations may be changed in light of comments received. All comments received before the expiration of the comment period will be considered before final action is taken on the proposal. No public hearing is planned, but one may be held if written requests for a hearing are received and it is determined that the opportunity to make oral presentation will aid the rulemaking process. The receipt of comments will be acknowledged if a stamped self-addressed postcard or envelope is enclosed.

Drafting Information

The drafters of this notice are Mr. Billy J. Stephenson, project officer, Chief, Boating Affairs Branch, Fifth Coast Guard District, and Lieutenant Commander Robin K. Kutz, project attorney, Fifth Coast Guard District Legal Staff.

Discussion of Proposed Regulation

The Chesapeake Bay Powerboat Association is sponsoring this event, which involves competition between approximately 60 Sport and Performance Offshore Race Boats, ranging from 20 to 45 feet long, racing a 15 nautical mile triangular course. The competition will continue for 5 hours. Races will start off Sandy Point State Park, run north to Baltimore Light (LLNR 7365), thence easterly to Upper Chesapeake Bay Light Buoy 3 (LLNR 7665), thence southerly to Chesapeake Bay Channel Light Gong Buoy WR 81 (LLNR 7320), thence to the point of beginning. These regulations will be in effect from 9:00 a.m. to 4:00 p.m., on September 16, 1989. The regulated area will encompass the race course plus a 500 yard buffer zone around the course and will be closed to waterborne traffic while each race is being started and when the race boats cross Craighill Channel in the vicinity of Baltimore Light. Since the race boats will clear the starting area and cross Craighill Channel very quickly, commercial traffic should not be severely disrupted.

Economic Assessment and Certification

These proposed regulations are considered to be non-major under Executive Order 12291 on Federal Regulation and non-significant under Department of Transportation regulatory policies and procedures (44 FR 11034; February 26, 1979). Because closure of the waterway is not anticipated for any extended period, commercial marine traffic will be inconvenienced only slightly. The economic impact of this proposal is expected to be so minimal that a full regulatory evaluation is unnecessary. Since the impact of this proposal is expected to be minimal, the Coast Guard certifies that, if adopted, it will not have a significant economic impact on a substantial number of small entities.

Federalism Assessment

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that the proposed rulemaking does not raise sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Environmental Impact

This rulemaking has been thoroughly reviewed by the Coast Guard and it has been determined to be categorically excluded from further environmental documentation in accordance with section 2.B.2.c of Commandant

Instruction (COMDTINST) M16475.1B. A Categorical Exclusion Determination statement has been prepared and has been placed in the rulemaking docket.

List of Subjects in 33 CFR Part 100

Marine Safety, Navigation (water).

Proposed Regulations

In consideration of the foregoing, the Coast Guard proposes to amend Part 100 of Title 33, Code of Federal Regulations as follows:

PART 100—[AMENDED]

1. The authority citation for Part 100 continues to read as follows:

Authority: 33 U.S.C. 1233; 49 CFR 1.46 and 33 CFR 100.35.

2. A temporary § 100.35-0528 is added to read as follows:

§ 100.35-0528 Chesapeake Bay, Sandy Point, Maryland.

(a) *Definitions*—(1) *Regulated Area*. The waters of the Chesapeake Bay bounded by a line connecting the following points:

Latitude	Longitude
39°03'40.0" N.	76°24'23.5" W.
39°05'54.0" N.	76°17'46.0" W.
38°59'42.0" N.	76°22'41.0" W.
39°59'42.0" N.	76°22'41.0" W.

(2) *Coast Guard Patrol Commander*. The Coast Guard Patrol Commander is a commissioned, warrant, or petty officer of the Coast Guard who has been designated by the Commander, Group Baltimore.

(b) *Special Local Regulations*. (1) Except for persons or vessels authorized by the Coast Guard Patrol Commander, no person or vessel may enter or remain in the regulated area.

(2) The operator of any vessel in the immediate vicinity of this area shall:

(i) Stop the vessel immediately upon being directed to do so by any commissioned, warrant, or petty officer on board a vessel displaying a Coast Guard ensign.

(ii) Proceed as directed by any commissioned, warrant, or petty officer.

(3) Any spectator vessel may anchor outside of the regulated area specified in paragraph (a)(1) of these regulations but may not block a navigable channel.

(c) *Effective date*. These regulations are effective from 9:00 a.m. to 4:00 p.m. on September 16, 1989.

Dated: May 11, 1989.

A.D. Breed,
Rear Admiral, U.S. Coast Guard Commander,
Fifth Coast Guard District.

[FR Doc. 89-12136 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-14-M

33 CFR Part 100

[CGD1 89-021]

**Special Local Regulations;
Windjammer Days, Boothbay Harbor,
ME****AGENCY:** Coast Guard; DOT.**ACTION:** Notice of proposed rulemaking.

SUMMARY: The Coast Guard is considering a proposal to adopt special local regulations for the annual Windjammer Days sail parade to be held in Boothbay Harbor, Maine. The display of classic schooners, without auxiliary power, is sponsored by the Boothbay Harbor Region Chamber of Commerce. An aerial demonstration and fireworks will also be part of the celebration. The regulations will be in effect from July 11 to 12, 1989 and will place operating restrictions on watercraft operating in the vicinity of the parading sail vessels, fireworks, and an aerial display. The regulations are constructed such that free navigation is restricted only while each of the events is taking place. These regulations are needed to provide for the safety of life on the navigable waters of the United States.

DATES: Comments must be received on or before July 16, 1989.

Comments: Comments should be mailed to Commander (b), First Coast Guard District, Captain John Foster Williams Coast Guard Building, 408 Atlantic Avenue, Boston, MA 02210-2209. The comments and other material referenced in this notice will be available for inspection and copying in Room 428 at the same address. Normal office hours are between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday, except holidays. Comments may also be hand delivered.

FOR FURTHER INFORMATION CONTACT: Captain Ronald L. Blake, (617) 223-8310.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this rulemaking by submitting written views, data or arguments. Persons submitting comments should include their names and addresses, identify this notice (CGD1 89-021) and the specific section of the proposal to which their comments apply, and give reasons for each comment.

The regulations may be changed in light of comments received. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. No public hearing is planned, but one may be held if written requests for a hearing are received and

it is determined that the opportunity to make oral presentation will aid the rulemaking process. The receipt of comments will be acknowledged if a stamped self-addressed postcard or envelope is enclosed.

Drafting Information

The drafters of these regulations are LT L. BROWN, project officer, First Coast Guard District Boating Affairs Branch and LT J. B. GATELY, project attorney, First Coast Guard District Legal Office.

Discussion of Regulations

The Windjammer Days is a sail parade of classic schooners which are restricted in their ability to maneuver since none of the yachts are equipped with auxiliary power. The vessels will be parading under sail from the Tumbler Island area to the Boothbay Inner Harbor. The regulations will require all vessels to maintain a separation of 100 yards or more from the parading vessels to ensure that parade participants have ample maneuvering room. The 100 yard stand-off area will move with the parading vessels; once the last sailing vessel has passed, spectating and transiting vessels will be allowed unrestricted navigational freedom. In conjunction with the parade, there will be acrobatic stunts and fireworks and no vessels will be permitted to enter the waters under the aerial display or around the fireworks barge.

Federalism Assessment

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that the proposed rulemaking does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Economic Assessment and Certification

These proposed regulations are considered to be nonmajor under Executive Order 12291 on Federal Regulation and nonsignificant under Department of Transportation regulatory policies and procedures (44 FR 11034; February 26, 1979). The economic impact of this proposal is expected to be so minimal that a full regulatory evaluation is unnecessary. The event will draw a number of spectators and participants into the area which will aid the local economy. Navigation will be restricted intermittently within the regulated area during the effective period of regulation and all vessels, commercial and recreational, will have access to all portions of Boothbay Harbor and the Atlantic Ocean with minimal

inconvenience and little delay. Since the impact of this proposal is expected to be minimal, the Coast Guard certifies that, if adopted, it will not have a significant economic impact on a substantial number of small entities.

List of Subjects in 33 CFR Part 100

Marine safety, Navigation (water).

Regulations

In consideration of the foregoing, Part 100 of Title 33, Code of Federal Regulations, is amended as follows:

PART 100—[AMENDED]

1. The authority citation continues to read as follows:

Authority: 33 U.S.C. 1233; 49 CFR 1.46 And 33 CFR 100.35

2. A temporary § 100.35-01-21 is added to read as follows:

**§ 100.35-01-21 Windjammer Days,
Boothbay Harbor, Maine.**

(a) *Regulated Area.* The Boothbay Harbor entrance and harbor channel extending from the Tumbler's Island Buoy #8 area to Boothbay Inner Harbor. Specifically, the regulated area is enclosed as follows: a line drawn due east from the southwest (43-50-10 North; 069-38-20 West) to the Spruce Point Shore; thence following the shore north along Spruce Point and around the Boothbay Harbor to Railway Point (43-50-54 North; 069-38-20 West); thence extending seaward in a southerly direction back to the southwest boundary of the regulated area.

(b) *Special Local Regulations.* (1) Between the hours of 2:30 p.m. and 4:00 p.m. on July 11, 1989 and acrobatic demonstration will take place in southern portion of regulated area. All transiting and spectating vessels shall remain clear of the waters below the flight area. Coast Guard vessels will be present to direct marine traffic and to establish exact spectator boundaries.

(2) When operating within the regulated area during the sail parade, all vessels with the exception of official regatta patrol vessels, shall maintain a separation of at least 100 yards from the parade participants. The 100 yard area will move with each vessel in the parade as they transit to Boothbay inner harbor.

(3) Between the hours of 8:00 p.m. and 10:30 p.m. on July 12, 1989, a fireworks barge will be anchored southwest of McFarland Island in approximate location 43-50-35 North; 38-30-00 West. All vessels must maintain a clearance of 300 yards from the barge or as directed by Coast Guard patrol vessels.

(4) All vessels shall exercise extreme caution when operating in the regulated area.

(5) Coast Guard Auxiliaries will be patrolling the regatta to advise participants, spectators, and transiting vessels the content of these regulations.

(c) *Effective Dates.* These regulations become effective at 2:00 p.m. on July 11, 1989 and terminate at 10:00 p.m. on July 12, 1989.

Dated: May 3, 1989.

R.O. Buttrick,

Captain, U.S. Coast Guard, Acting
Commander, First Coast Guard District.

[FR Doc. 89-12137 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-14-M

FEDERAL EMERGENCY MANAGEMENT AGENCY

44 CFR Part 67

[Docket No. FEMA-6957]

Proposed Flood Elevation Determinations

AGENCY: Federal Emergency
Management Agency.

ACTION: Proposed rule.

SUMMARY: Technical information or comments are solicited on the proposed modified base (100-year) flood elevations listed below for selected locations in the nation. These base (100-year) flood elevations are the basis for the floodplain management measures that the community is required to either adopted or show evidence of being already in effect in order to qualify or

remain qualified for participation in the National Flood Insurance Program.

DATES: The period for comment will be ninety (90) days following the second publication of the proposed rule in a newspaper of local circulation in each community.

ADDRESSES: See table below.

FOR FURTHER INFORMATION CONTACT: Mr. John L. Matticks, Chief, Risk Studies Division, Federal Insurance Administration, Federal Emergency Management Agency, Washington, DC 20472, (202) 646-2767.

SUPPLEMENTARY INFORMATION: The Federal Emergency Management Agency gives notice of the proposed determinations of modified base (100-year) flood elevations for selected locations in the nation, in accordance with section 110 of the Flood Disaster Protection Act of 1973 (Pub. L. 93-234), 87 Stat. 980, which added section 1363 to the National Flood Insurance Act of 1968 (Title XIII of the Housing and Urban Development Act of 1968 (Pub. L. 90-448)), 42 U.S.C. 4001-4128, and 44 CFR 67.4(a).

These elevations, together with the floodplain management measures required by § 60.3 of the program regulations, are the minimum that are required. They should not be construed to mean that the community must change any existing ordinances that are more stringent in their floodplain management requirements. The community may at any time enact stricter requirements on its own, or pursuant to policies established by other Federal, State, or regional entities.

These proposed modified elevations will also be used to calculate the appropriate flood insurance premium rates for new buildings and their contents and for the second layer of insurance on existing buildings and their contents.

Pursuant to the provisions of 5 U.S.C. 605(b), the Administrator to whom authority has been delegated by the Director, Federal Emergency Management Agency, hereby certifies that the proposed modified flood elevation determinations, if promulgated, will not have a significant economic impact on a substantial number of small entities. A flood elevation determination under Section 1363 forms the basis for new local ordinances, which, if adopted by a local community, will govern future construction within the floodplain area. The local community voluntarily adopts floodplain ordinances in accord with these elevations. Even if ordinances are adopted in compliance with Federal standards, the elevations prescribe how high to build in the floodplain and do not proscribe development. Thus, this action only forms the basis for future local actions. It imposes no new requirement; of itself it has no economic impact.

List of Subjects in 44 CFR Part 67

Flood insurance, Floodplains.

The authority citation for Part 67 continues to read as follows:

Authority: 42 U.S.C. 4001 et seq., Reorganization Plan No. 3 of 1978, E.O. 12127.

The proposed modified base flood elevations for selected locations are:

PROPOSED MODIFIED BASE FLOOD ELEVATIONS

State	City town/county	Source of flooding	Location	#Depth in feet above ground *Elevation in feet (NGVD)	
				Existing	Modified
Colorado.....	Adams County, Unincorporated Areas.	South Platte River.....	Approximately 1,180 feet downstream of west-bound Interstate Highway 270.	*5,112	*5,112
			At Metro Denver Sewage Treatment Plant bridge.	*5,117	*5,119
			At York Street bridge.....	*5,124	*5,128
			At Burlington Ditch Diversion structure.....	*5,134	*5,137
			At Franklin Street bridge (at upstream county line).	*5,136	*5,144
Maps are available for review at the Adam County Planning and Development Services Department, 4955 East 74th Avenue, Commerce City, Colorado.					
Send comments to The Honorable Elaine T. Valente, Chairperson, Adams County Board of Commissioners, 450 South 4th Avenue, Brighton, Colorado 80601.					
Kentucky.....	City of Elkhorn City, Pike County.	Russell Fork	Just downstream of confluence of Moore Branch.	*770	*773
			Approximately 2,400 feet upstream of confluence of Big Island Branch.	*817	*820
Maps available for inspection at the City Hall, Nelly R. Tackett, Treasure Clerk, South Center Street, P.O. box 681, Elkhorn City, Kentucky.					
Send comments to The Honorable John W. Moore, Mayor, City of Elkhorn City, City Hall, South Center Street, P.O. Box 681, Elkhorn City, Kentucky 41522.					
Kentucky.....	Village of Coal Run, Pike County.	Levisa Fork	About 1.2 miles downstream of CSX railroad.....	*667	*670
			About 400 feet upstream of CSX railroad.....	*669	*671

PROPOSED MODIFIED BASE FLOOD ELEVATIONS—Continued

State	City town/county	Source of flooding	Location	#Depth in feet above ground *Elevation in feet (NGVD)	
				Existing	Modified
Maps available for inspection at the Village Clerk's Office, Box 339 Main Street, P.O. Box 548, Pikeville, Kentucky. Send comments to The Honorable John Mike Glavaris, Mayor, Village of Coal Run, 339 Main Street, P.O. Box 548, Pikeville, Kentucky 41501.					
Kentucky.....	Unincorporated Area of Pike County.	Levisa Fork.....	At downstream County Boundary.....	*662	*666
			About 2.83 miles upstream from confluence of Russell Fork.	*696	*696
		Russell Fork.....	At mouth.....	*695	*695
			At upstream State Boundary.....	*866	*869
		Ratliff Creek.....	At mouth.....	*670	*672
			About 0.39 miles upstream from confluence of Levisa Fork.	*670	*672
		Shelby Creek.....		*686	*687
			About 1.12 miles upstream from confluence of Levisa Fork.	*687	*687
		Marrowbone Creek.....	At mouth.....	*709	*716
			About 0.58 miles upstream from confluence of Russell Fork.	*716	*716

Maps available for inspection at the Public Works Department, Flood Plain Management Division, Pike County Courthouse, Main Street, Pikeville, Kentucky.
 Send comments to The Honorable Paul E. Patton, Judge Executive, Pike County, Pike County Courthouse, Main Street, Pikeville, Kentucky 41501

Maryland	Perryville, town, Cecil County.	Mill Creek	At confluence with Furnace Bay	None	*12
			At U.S. Route 40	None	*100

Maps available for inspection at the Town Hall, 515 Broad Street, Perryville, Maryland.

Send comments to The Honorable Alfred C. Wain, Perryville Town Administrator, Cecil County, P.O. Box, M 515 Broad Street, Perryville, Maryland 21903-0513

Pennsylvania	Conewango Township, Warren County.	Jackson Run	Approximately 1,600 feet upstream of U.S. Route 62 Bridge.	*1,206	*1,207
			Approximately 200 feet downstream of Abandoned Bridge.	*1,213	*1,214

Maps available for inspection at the Township Building, 4 Firearm Road, Warren, Pennsylvania Board.

Send comments to The Honorable Russell Jackson, Chairman of the Township of Conewango Board of Supervisors, Warren County, 4 Fireman Road, Warren, Pennsylvania 16365.

Pennsylvania	Lehighton Borough, Carbon County.	Mahoning Creek	Approximately 25 feet upstream of CONRAIL Bridge.	*463	*462
			Approximately 700 feet upstream of Dam	*464	*465

Maps are available for inspection at the Municipal Building, Constitution Avenue, Lehighton, Pennsylvania.

Send comments to The Honorable Edward John Deichmeister, Manager for the Borough of Lehighton, Carbon County, Municipal Building, P.O. Box 29, Lehighton, Pennsylvania 18235

Texas	Bexar County, Unincorporated Areas.	Tributary A of Culebra Creek	Approximately 200 feet downstream of Tezel Road Bridge.	*837	*838
			Approximately 400 feet upstream of Timber Ranch Bridge.	*845	*846

Maps available for inspection at the Bexar County Public Works Department, County Courthouse, San Antonio, Texas.

Send comments to The Honorable Tom Vickers, Bexar County Judge, Bexar County Courthouse, Commissioners Court, Suite 101, San Antonio, Texas 78205.

Texas	Grand Prairie, City, Tarrant, Dallas, and Ellis Counties.	West Fork of Trinity River	Upstream side of Beltline Road	*442	*441
			Approximately 1,500 feet downstream of N.W. 19th Street.	*452	*453
		Mountain Creek	Approximately 300 feet upstream of Singleton Boulevard.	*426	*427
			Downstream side of Mountain Creek Dam	*441	*440
		Stream BC5	At corporate limits	*475	*472
			Approximately 650 feet upstream of corporate limits.	*475	*474
		Stream 8C6	At Camp Wisdom Road	*476	*472
			Approximately 300 feet upstream of Camp Wisdom Road.	*476	*475

Maps available for inspection at the City Hall, 317 W. College, Grand Prairie, Texas.

Send comments to The Honorable Jerry Debo, Mayor of the City of Grand Prairie, Tarrant, Dallas, and Ellis Counties: P.O. Box 530011, Grand Prairie, Texas 75053-0011.

Texas	Irving, City, Dallas County	Estelle Creek	Upstream side of State Route 183	*486	*485
			Downstream side of Northgate Drive	*517	*518

Maps available for inspection at the Department of Public Works, 825 West Irving Boulevard, Irving, Texas:

Send comments to The Honorable Bob Pierce, M.D., Mayor of the City of Irving, Dallas, County P.O. Box 152288, Irving, Texas 75015-2288:

PROPOSED MODIFIED BASE FLOOD ELEVATIONS—Continued

State	City town/county	Source of flooding	Location	#Depth in feet above ground *Elevation in feet (NGVD)	
				Existing	Modified
Texas	Mesquite, City, Dallas County	South Mesquite Creek.....	Approximately 1,650 feet downstream of Peachtree Road.	*455	*456
			Approximately 600 feet upstream of Gus Thomasson Road (most downstream crossing).	*489	*490
		West Fork of South Mesquite Creek.....	At confluence with South Mesquite Creek.....	*461	*460
			Approximately 1,000 feet upstream of confluence.	*461	*460
		Stream 2B8.....	At confluence with South Mesquite Creek.....	*461	*462
			Approximately 200 feet downstream of Interstate 20 & 635.	*464	*463
		Stream 2B6.....	Approximately 500 feet upstream of Baker Drive.	*506	*505
			Approximately 1,400 feet upstream of Baker Drive.	*508	*510
		Stream 2B7.....	Approximately 400 feet upstream of confluence with South Mesquite Creek.	*476	*475
			Approximately 100 feet downstream of Emerald Drive.	*504	*503
		North Mesquite creek.....	Approximately 950 feet upstream of the west-bound lane Interstate 20 and U.S Highway 80.	*478	*479
			Approximately 400 feet downstream of Town East Boulevard.	*503	*503

Maps available for inspection at the City Hall, 711 North Galloway, Mesquite, Texas 75149.

Send comments to The Honorable James Prugel, Manager of the City of Mesquite, Dallas County, P.O. Box 850137, Mesquite, Texas 75185-0317.

Texas	Rosenberg, City, Fort Bend County	Dry Creek.....	At downstream corporate limits.....	*92	*86
			Approximately 1,590 feet downstream of Airport Road.	*96	*95
		Seabourne Creek.....	At downstream corporate limits.....	*92	*90
			Approximately .7 mile upstream of downstream corporate limits.	*96	*95
		Brazos River.....	At downstream corporate limits (extended).....	*94	*92
			Approximately 1.9 miles upstream of upstream corporate limits (extended).	*94	*92
		North Branch Dry Creek.....	At upstream side of Laurel Avenue.....	*98	*99
			Approximately 1,100 feet upstream of Laurel Avenue.	*98	*99

Maps available for inspection at the Public Works Department, 2110 Fourth Street, Rosenberg, Texas.

Send comments to The Honorable Larry Wilkenson, Mayor of the City of Rosenberg, Fort Bend County, P.O. Box 32, Rosenberg, Texas 77471-0032.

Virginia	Patrick County, Unincorporated Areas.	South Mayo River.....	Approximately 0.7 mile downstream of State Route 681.	*1,153	*1,154
			Approximately 100 feet downstream of confluence of North Fork South Mayo River.	*1,215	*1,214
		Campbell Branch.....	At confluence with South Mayo River.....	*1,182	*1,176
			At downstream side of Masonite Building.....	*1,182	*1,180
		South Mayo River Diversion.....	At confluence with South Mayo River.....	None	*1,175
			At divergence from South Mayo River.....	None	*1,186

Maps available at the County Administration Building, Rucker Street, Stuart, Virginia.

Send comments to The Honorable Ewell Harold, Chairman of the Patrick County Board of Supervisors, P.O. 466, Stuart, Virginia 24171.

Harold T. Duryee,
Administrator, Federal Insurance
Administration.

Issued: May 9, 1989.

[FR Doc. 89-12207 Filed 5-19-89; 8:45 am]

BILLING CODE 6718-03-M

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety
Administration

49 CFR Part 531

[Docket No. FE-88-01, Notice 4]

RIN 2127-AB75

Passenger Automobile Average Fuel
Economy Standard for Model Year
1990

AGENCY: National Highway Traffic
Safety Administration (NHTSA), DOT.

ACTION: Termination of rulemaking.

SUMMARY: In August 1988, NHTSA published a notice of proposed rulemaking concerning the average fuel economy standards for model year (MY) 1989-90 passenger automobiles. While those standards were set at 27.5 mpg by statute, NHTSA has authority to amend the standards. The agency stated that it was seeking public comment on whether to reduce the standards for MY 1989, MY 1990, or both, within a range of 26.5 mpg to 27.5 mpg. In September 1988, NHTSA issued a final rule reducing the MY 1989 standard from 27.5 mpg to 26.5

mpg. After carefully considering the comments and other available information, NHTSA has decided not to amend the statutorily set 27.5 mpg CAFE standard for MY 1990, and is terminating that rulemaking. This decision reflects the increasing need of the nation to conserve energy and the agency's conclusion that retention of the 27.5 mpg standard for MY 1990 will not have a significant adverse effect on U.S. employment or on the competitiveness of the U.S. auto industry due, in part, to the availability of credits from past years.

FOR FURTHER INFORMATION CONTACT:

Mr. Orron Kee, Office of Market Incentives, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590. (202) 366-0846.

SUPPLEMENTARY INFORMATION:

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I. Background

I-A. Statutory Provisions

In December 1975, Congress enacted the Energy Policy and Conservation Act (EPCA) in response to the energy crisis created by the oil embargo of 1973-74, and to the level of oil imports (35.8 percent of the nation's oil needs in 1975) and of oil imports from OPEC sources (22.0 percent of the nation's oil needs and 61.6 percent of all imports in 1975). Based on the relatively low average fuel economy of cars at that time (14 mpg for model year (MY) 1974 cars) and on a Congressionally mandated report by the Department of Transportation and Environmental Protection Agency (EPA) on the potential for improving that average, Congress included a provision in that Act establishing an automotive

fuel economy regulatory program. That provision added a new title, Title V, to the Motor Vehicle Information and Cost Savings Act.

Title V specified corporate average fuel economy (CAFE) standards for passenger automobiles of 18, 19 and 20 mpg for model years (MY) 1978, 1979 and 1980, respectively, and 27.5 mpg for MY 1985 and thereafter. Congress selected those standards after careful consideration of the DOT/EPA report submitted to Congress pursuant to section 10 of the Energy Supply and Environmental Coordination Act of 1974 (Pub. L. 93-319).

The Secretary of Transportation, as delegated to the Administrator of NHTSA, was required to establish standards for MY 1981-84. Section 502(a)(3) required that the standards for each of those model years be set at a level which (1) was the maximum feasible average fuel economy level and (2) would result in steady progress toward meeting the 27.5 mpg standard for MY 1985. In determining the "maximum feasible average fuel economy level," the agency is required by section 503(e) to consider the following four factors: (1) Technological feasibility, (2) economic practicability, (3) the effect of other Federal motor vehicle standards on fuel economy, and (4) the need of the nation to conserve energy.

Section 502(a)(4) authorizes, but does not require, NHTSA to amend the standard of 27.5 mpg for MY 1985 or any subsequent model year. If the standard for a particular model year is amended, it must be set at the maximum feasible average fuel economy level for that year. While Title V provides no express guidance concerning the appropriate circumstances for the exercise of its discretion to amend, the agency is guided by the purposes of EPCA and by the statutory scheme of Title V. As the agency has explained in several notices in the past, it believes that the exercise of its discretion consistent with those factors is required by the provision in the Administrative Procedure Act stating that an agency's discretionary decision will be set aside if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. 706(2)(A).

While compliance with fuel economy standards is determined by averaging the fuel economy ratings of the various models produced by each manufacturer,

enabling them to produce vehicles with fuel economy below the level of the standard if they produce sufficient numbers of vehicles with fuel economy above the level of the standard, manufacturers may not average their imported cars together with their domestically manufactured cars. Instead, a manufacturer's imported and domestically manufactured fleets each must separately meet fuel economy standards. (See section 503(b) of the Act.) Cars are considered to be domestically manufactured if they have at least 75 percent domestic content. Conversely, cars are considered to be imports, or as the statute characterizes them, "not domestically manufactured," if they have less than 75 percent domestic content.

While a separate fuel economy standard is set for each model year, Title V does not require absolute achievement of the standard by manufacturers for each particular model year. Instead, it allows a shortfall in one year (or years) to be offset if a manufacturer exceeds the standard for another year (or years). Under the Act, as amended by the Automobile Fuel Efficiency Act of 1980, manufacturers earn credits for exceeding average fuel economy standards which may be carried back for three model years or carried forward for three model years. If a manufacturer still does not meet the standard, after taking credits into account, it has committed "unlawful conduct" under section 507 of the Act, and is liable to the Federal government for civil penalties under section 508.

I-B. Setting and Implementing the MY 1981-84 Standards

On June 30, 1977, NHTSA published in the *Federal Register* (42 FR 33534) a final rule establishing the MY 1981-1984 passenger automobile CAFE standards. The selected standards were 22.0 mpg for 1981, 24.0 mpg for 1982, 26.0 mpg for MY 1983 and 27.0 mpg for MY 1984. For a description of the analysis underlying those standards, see the August 1988 notice of proposed rulemaking (NPRM), 53 FR 33080, August 29, 1988.

Between January and May of 1979, NHTSA received a number of submissions from Ford and General Motors (GM) on the MYs 1981-1984 fuel economy standards for passenger automobiles asserting that those standards should be reduced. In

response to these submissions, the agency published a document entitled "Report on Requests by General Motors and Ford to Reduce Fuel Economy Standards for MY 1981-85 Passenger Automobiles," DOT HS-804 731, June 1979. The report concluded that the standards were technologically feasible and economically practicable and noted that both companies had submitted product plans for meeting the standards. Report, p. 14.

One year later, the nation was in the midst of another energy crisis, brought on by events in Iran. Gasoline prices were rising rapidly creating significantly increased consumer demand for small cars. The U.S. city average retail price for gasoline rose from 68 cents per gallon in 1979 to \$1.22 in 1980. (In 1988 dollars, this increase was from \$1.37 in 1979 to \$1.74 in 1980.) In light of these changed conditions, the industry announced plans to significantly exceed the 27.5 mpg standard for 1985. Both Ford and GM, as well as Chrysler and American Motors (now a part of Chrysler), indicated that they expected to achieve average fuel economy levels in excess of 30 mpg for that model year. Product plans submitted to NHTSA by those companies indicated that the projections assumed significant mix shifts toward smaller cars and smaller engines, as well as rapid introductions of new technology.

Conditions affecting fuel economy changed dramatically in the early 1980's, following completion of decontrol of domestic oil and other external factors that increased available supplies. Gasoline prices did not continue to rise but instead declined over time. This, combined with economic recovery, caused consumer demand to shift back toward larger cars and larger engines. Data submitted to the agency by GM and Ford in mid-1983 indicated that instead of achieving fuel economy well in excess of the 27.5 mpg standard for MY 1985, they would be unable to meet the level prescribed by the standard.

I-C. Rulemakings to Amend the MY 1986-1988 Standards

In March 1985, both GM and Ford submitted petitions for rulemaking requesting that NHTSA reduce the passenger automobile average fuel economy standard for the 1986 model year and beyond from 27.5 mpg to 26.0 mpg. The petitioners stated that factors beyond their control, including lower gasoline prices and resultant greater consumer demand for larger cars and engines, had reduced their fuel economy capability. NHTSA granted the GM and Ford petitions in a notice published in

the Federal Register (50 FR 12344) on March 28, 1985.

In conducting rulemaking in response to the GM and Ford petitions, NHTSA proceeded from the premise that because the Cost Savings Act had imposed a long-term obligation on manufacturers to achieve a 27.5 mpg fuel economy level, it would be inappropriate to exercise its discretion to reduce the standard if a current inability to meet the standard simply resulted from the manufacturers previously declining to take appropriate steps to improve their average fuel economy as required by the Act. The agency therefore evaluated the manufacturers' past efforts to achieve higher levels of fuel economy as well as their immediate capabilities.

On September 30, 1985, NHTSA issued a final rule which reduced the MY 1986 standard from 27.5 mpg to 26.0 mpg (50 FR 40528, October 4, 1985). The agency concluded that GM and Ford, constituting a substantial share of the industry, had taken or planned reasonable steps to meet the 27.5 mpg standard in MY 1986 and made significant progress toward doing so, but were prevented from fully implementing those steps by unforeseen events. The decline in gasoline prices, which began in 1982, had been expected to be temporary and quickly reverse, but instead continued. The agency concluded that, among other things, there had been a substantial shift in expected consumer demand toward larger cars and engines, and away from the more fuel-efficient sales mixes previously anticipated by GM and Ford. The agency's analysis indicated that this shift was largely attributable to the continuing decline in gasoline prices and that the only actions available to those manufacturers to improve their fuel economy in the remaining time for MY 1986 would have involved product restrictions likely resulting in significant adverse economic impacts, including sales losses well into the hundreds of thousands of cars and job losses well into the tens of thousands, and unreasonable restrictions on consumer choice. The reduction of the MY 1986 standard based on that analysis was subsequently upheld by the D.C. Circuit Court of Appeals as consistent with the provisions of the Act and within the agency's discretion. *Public Citizen v. NHTSA*, 848 F.2d 256, 264 (D.C. Cir. 1988).

On October 1, 1986, NHTSA issued a final rule which reduced the MY 1987-88 standards from 27.5 mpg to 26.0 mpg (51 FR 35594, October 6, 1986). The agency again concluded that manufacturers had

made reasonable efforts at compliance, but that these efforts had been overtaken by unforeseen events, whose effects could not be overcome by available means within the time available. NHTSA stated:

[B]oth GM and Ford have continued to make significant technological improvements in their fleets and have had reasonable plans to meet CAFE standards. In a situation where unforeseen events, including changes in consumer demand or changes in the competition's product offerings, overtake a manufacturer's reasonable product plan, the agency does not consider it consistent with the Act to "hold" the manufacturer to carrying out a product plan that has become economically impracticable. (51 FR 35611)

In evaluating the reasons for GM's and Ford's declining MY 1987-88 CAFE projections, the agency noted that the companies appeared to be applying the same technologies as planned in late 1983. In the case of GM, NHTSA stated that the two major reasons for the decline in GM's CAFE projections were net engine and model mix shifts and engine and transmission improvement programs not yielding projected gains. The great majority of the factors reducing Ford's CAFE projections were due to net shifts in projected sales for models and engines, engine efficiency improvements not yielding projected gains, and new models not meeting initial weight targets. The agency thus concluded that the major reasons for the decline in both GM's and Ford's MYs 1987-88 CAFE projections were largely beyond those companies' control. (51 FR 35610)

NHTSA's analysis further indicated that the only actions then available to those manufacturers to raise the fuel economy of their domestic fleets to 27.5 mpg in MYs 1987-88 would involve a combination of (1) product restrictions likely resulting in significant adverse economic impacts, including substantial job and sales losses and unreasonable restrictions on consumer choice, and (2) transfer of the production of large cars outside of the United States, thereby costing American jobs, while having no energy conservation benefits. (51 FR 35594)

I-D. Petitions to Amend the MY 1989-90 Standards

The agency received five petitions to amend the passenger car CAFE standards for MY 1989-90. The petitioners included GM, the Automobile Importers of America, Inc. (AIA), Mercedes-Benz, Austin Rover, and the Competitive Enterprise Institute (CEI). All of the petitioners sought rulemaking to set those CAFE standards

below 27.5 mpg, with four of them basing their request on the reported prospective inability of automobile manufacturers to meet the statutorily set standard of 27.5 mpg. The basis for the fifth petition (CEI) was the contention that the CAFE program has caused an increase in motor vehicle fatalities.

I-E. NPRM for MY 1989-90

On August 29, 1988, NHTSA published in the *Federal Register* (53 FR 33080) an NPRM concerning the MY 1989-90 passenger automobile average fuel economy standards. The agency stated that it was seeking public comment on whether to reduce the standards for MY 1989, MY 1990, or both, within a range of 26.5 mpg to 27.5 mpg. NHTSA stated that it was taking this action to determine whether retaining the 27.5 mpg standard would have a significant, adverse effect on U.S. employment or on the competitiveness of the U.S. auto industry. The agency invited and received both written and oral comments on the proposal. A public meeting was held on September 14, 1988, in Washington, DC, to receive the oral comments.

The comment period for the proposed MY 1989 standard closed on September 15, 1988, and the comment period for the proposed MY 1990 standard closed on October 28, 1988.

I-F. Final Rule for MY 1989

On September 30, 1988, NHTSA issued a final rule which reduced the MY 1989 standard from 27.5 mpg to 26.5 mpg (53 FR 39275, October 6, 1988). The agency determined that 26.5 mpg was the "maximum feasible average fuel economy level," after balancing the statutory criteria of economic practicability, technological feasibility, the effect of other Federal motor vehicle standards, and the need of the nation to conserve energy.

While the 26.5 mpg standard for MY 1989 represented a lowering of the statutory standard, it also represented an increase from the standards for MY 1986-88. NHTSA noted that its action was thus consistent with the fact that the nation's conservation needs are greater now than they were in 1985, when the agency first set the standard at 26.0 mpg. The agency stated that "(b)alancing the agency's view about what level of standard is economically practicable for MY 1989 against the nation's conservation needs, NHTSA believes that a proper balance between these factors can be reached by increasing the standard to 26.5 mpg, a 0.5 mpg increase over the 1988 level." 53 FR 39302.

II. Public Comments for MY 1990

Comments concerning the MY 1990 CAFE standard were received in several stages. Many of the comments submitted by September 15, 1988, the comment due date for MY 1989, addressed the CAFE levels for both MY 1989 and 1990. These comments were summarized and addressed in detail in the final rule for the MY 1989 passenger vehicle CAFE standards, published on October 6, 1988, and are incorporated by reference into this document (see 53 FR 39275, 39280). The agency received additional comments by October 28, 1988, the separate closing date for MY 1990, as well as additional comments after that date. In most cases, these comments supplemented previously submitted comments, but several individuals commented for the first time. It is these additional comments received by the agency that are summarized below.

NHTSA considered the information and views in all comments that are relevant to the MY 1990 standard, and did not exclude from its consideration any material because it was submitted in the context of the MY 1989 rulemaking. The agency will repeat summaries of comments contained in the October 6, 1988 final rule to the extent this information is needed for the readability of this document.

The additional comments came from individuals, trade and special interest groups, vehicle manufacturers, Members of Congress and State legislatures, as well as one State agency and one Governor. Some parties strongly supported a reduction in the MY 1990 CAFE standard, while others strongly opposed such action.

The comments included follow-up submissions from three vehicle manufacturers: GM, Ford, and Volvo. GM provided additional information concerning its surveys of intended purchasers regarding increased preferences for "power and pickup", larger, more fully equipped cars, four door styling and decreased concern about fuel economy. GM stated that it believed the circumstances have not changed since NHTSA made its determination to set the MY 1989 standard at 26.5 mpg, and it should make the same determination for MY 1990 as well.

GM believes that the core findings NHTSA made in determining the 26.5 mpg level for MY 1989 still pertain: that is, GM has made reasonable efforts to achieve 27.5 mpg; a reduction to 26.5 mpg would have no appreciable effect on real energy consumption; CAFE distorts the market and trade balance by conferring an unearned competitive

advantage on foreign manufacturers; and the risks of adverse effects on employment and our nation's economy accompanying a failure to adjust the standard to the maximum feasible level far outweigh the benefit to any other interest that Congress expressed in the statute.

Ford also supported the agency's decision to set the MY 1989 CAFE standard at 26.5 mpg, and stated its belief that the same conditions apply for MY 1990. Ford supplemented its previous comments with a further discussion of estimates of the fuel economy benefits of specific technologies and an explanation of the vehicle weight penalty associated with the installation of automatic restraints.

Ford discussed specific CAFE enhancing technologies, and estimated the percent of penetration for these features within the MY 1990 timeframe. Generally, "Ford fleet penetration for model years 1989-1990 of the majority of these actions is between 70 and 100 percent." Ford believes that the agency's estimates, as presented in the MY 1989 Final Regulatory Impact Analysis (FRIA), are optimistic and do not clearly indicate what the agency is using as a baseline. Ford acknowledges that some of its own estimates have not been met, and this has been due to "compromises necessary to satisfy customer demands and competitive product pressures which arose since our original estimates were made."

Ford also explained its beliefs regarding the vehicle weight penalty associated with the installation of automatic restraints. The increase in weight due to the added automatic restraint systems in the Tempo/Topaz and the Escort are 27 and 26 pounds respectively. However, Ford notes that, due to commonization of parts, the actual difference between the manual restraint system offered in Canada and automatic restraint systems offered in the United States will be between 13-15 pounds. Ford provided detailed parts lists to demonstrate the estimated weight penalty.

Volvo noted that certain of the safety features it provides its purchasers, which are in addition to those installed pursuant to any Federal requirements, include a laminated rear window, 3-point seat belts in rear outboard positions, dual front seat belt retractors, anti-submarining protection and rear seat head restraints. The weight range of the Volvo is 3250-3750 pounds. (The overall fleet average for MY 1988 was 3103 pounds.) Volvo projects a MY 1990 CAFE level of 25.7 mpg, and does not believe that it can attain better fuel

economy by this model year without compromising Volvo's reputation for safety and reliability.

The Competitive Enterprise Institute (CEI) submitted additional comments for MY 1990. While CEI argued that the agency's setting the standard at 26.5 mpg would be better than the statutory 27.5 mpg, it believes that even that is too high, because any standard which constrains large car sales will increase traffic deaths. CEI alleges that NHTSA, while agreeing that the safety issue should be addressed—in a long-term context—hides behind the yearly standard-setting schedules as a way of not dealing with the safety issue.

CEI disputed NHTSA's responses to the safety issues in the MY 1989 final rule. First, CEI takes issue with NHTSA's statement that "not all CAFE gains come at the price of reducing weight" as a way of ameliorating the effects of a higher standard. CEI acknowledges that not all CAFE gains involve weight reduction; however, it says that safety will be lowered if only some CAFE gains involve weight loss. Second, CEI disagrees with NHTSA's position that CAFE will affect which car makers produce these cars, but not the types of cars purchased by consumers. The agency has stated that vehicle drivers will attempt to buy big cars if that is what they want. They will buy from foreign competitors, buy minivans or keep their old cars. CEI finds this potential consumer response to CAFE standards to be undesirable because that organization does not consider minivans or old cars a safe option—minivans since they are not subject to the same safety standards as passenger vehicles, and old cars since many of them were not subject to certain Federal motor vehicle safety standards at the time of their manufacture.

The Energy Conservation Coalition (ECC) submitted additional comments. ECC has four basic criticisms of the agency's decision to adopt a standard of 26.5 mpg for MY 1989, which it believes would apply to any similar decision for MY 1990 as well. First, ECC argues that both GM and NHTSA consistently underestimate the actual achievable CAFE level for GM, and that GM is not making use of all available technology. Second, ECC questions some of GM's arguments concerning market-driven changes. Third, ECC notes the increasing share of the trade deficit consisting of imported cars, trucks, parts, and fuel. And fourth, ECC states that the transportation sector is using one million barrels more oil each day than in 1973, and that automobiles and light trucks account for 26 percent of

carbon dioxide emissions, a major greenhouse gas.

The Natural Resources Defense Council (NRDC) submitted additional comments to the docket. NRDC's basic argument is that the agency must undertake an environmental impact statement before any rollback in the MY 1990 standard can occur. NRDC states that the agency is rushing this rulemaking and that this course of action produces poor results and violates the National Environmental Policy Act. NRDC suggests that the agency is required by NEPA to consider alternatives and that its responsibility to consider raising the CAFE level above the 27.5 mpg level is as great as its responsibility to consider lowering the standard.

Subsequent to the October 28, 1988 comment closing date, NHTSA received additional comments. The agency received a November 22, 1988 letter from the Environmental Protection Agency regarding the MY 1990 standard. EPA noted the recent increase in interest in "the greenhouse effect" and indicated that it was reviewing several government rulemakings to see if any proposed actions would contribute to global warming. EPA agrees with NHTSA that action on one model year will not have a significant effect on the environment. EPA did indicate, however, it viewed a reduction in CAFE as "directionally wrong" as a general matter and said that vehicle energy efficiency improvements are likely to be a major component in any future domestic or international response to concerns about carbon dioxide emissions. In March 1989, EPA Administrator Reilly wrote to Secretary of Transportation Skinner to raise similar concerns.

In addition, to supplement the record for this proceeding, Transportation Secretary Skinner met with a broad spectrum of interested parties in February 1989. The meetings were held with representatives of General Motors, Ford, the United Auto Workers, the Center for Auto Safety, the Natural Resources Defense Council, and the Competitive Enterprise Institute.

III Decision for MY 1990

III-A. Summary

After carefully considering the comments and other available information, NHTSA has decided not to amend the statutorily set 27.5 mpg CAFE standard for MY 1990. This decision is based largely on the increasing need of the nation to conserve energy and a conclusion by the agency that retention of the 27.5 mpg standard for MY 1990

will not have a significant adverse effect on U.S. employment or on the competitiveness of the U.S. auto industry.

III-B. The Need of the Nation to Conserve Energy

The United States imported 15 percent of its oil needs in 1955. The import share had reached 35.8 percent by 1975, the year EPCA was passed, and peaked at 46.5 percent in 1977, at a cost of \$74 billion (stated in 1988 dollars). While the import share of total petroleum supply declined after that year, the cost continued to rise to a 1980 peak of \$102 billion (1988 dollars).

While the import share of petroleum supply declined through 1985, it has been increasing since that time. In 1985, the import share was 27.3 percent at a cost of \$50 billion (1988 dollars). For 1988, net imports were 37.0 percent of total supply. Due to sharply lower petroleum prices, however, the value of imports declined from 1985 to 1988, from \$50 billion to \$37 billion (1988 dollars). Imports from OPEC also declined through 1985 but have been rising since that time.

The nation's dependence on petroleum net imports since 1975 is summarized in the following table:

Year	Net imports as percent of U.S. petroleum products supplied	
	From OPEC	From all countries
1975 average	22.0	35.8
1977 average	33.6	46.5
1985 average	11.6	27.3
January 1988	18.0	34.9
1988 average	19.9	37.0
January 1989	N/A	41.0

The current energy situation and emerging trends point to the continued importance of oil conservation. The United States now imports a slightly higher percentage of its oil needs than it did during 1975, the year EPCA was passed, and the percentage of its oil supplied by OPEC is similar to that of 1975. Oil continues to account for well over 40 percent of U.S. energy use, and 97 percent of the energy consumed in the transportation sector. While the U.S. is the second-largest oil producer, it contains only three percent of the world's proved oil reserves. Moreover, proved reserves have declined from a peak of 39 billion barrels in 1970 to 27 billion barrels in 1987.

According to the Energy Information Administration's (EIA) 1989 Annual Energy Outlook, domestic production for

its "base case" projection is expected to decline from 10.5 MMB/D in 1988 to 8.6 MMB/D in 1995, and 8.5 MMB/D in 2000. Net imports are projected to increase from 6.3 MMB/D in 1988 to 9.3 MMB/D in 1995 and 10.2 MMB/D in 2000. Thus, as a percentage of total U.S. petroleum use, EIA expects imports to rise from a 1988 level of 37 percent to 52 percent of total supply in 1995 (exceeding the previous 1977 high of 46.5 percent) and 55 percent in 2000.

In its comment to the docket, the Department of Energy (DOE) emphasized several points about transportation's role in U.S. oil use and the importance of rising fuel efficiency. DOE noted that the 11 MMB/D used by the transportation sector in 1986 is almost 80% of total U.S. fuel use of oil and over 90% of the critical light product use. Thus, DOE wanted NHTSA to consider that any significant moderation in growing oil demand will require large transportation efficiency improvements. DOE also emphasized that the 1987 EIA oil demand forecasts (cited in the NPRM) assume that average new car efficiency will continue to improve, which DOE said does not seem likely given fuel economy trends (at least to the levels assumed by EIA), and that even with these projected increases in fuel efficiency, U.S. oil demand is projected to increase over 1.5 MMB/D by 2000.

The level of petroleum imports is only one aspect of the total energy conservation picture. Under EPCA and NEPA, for example, national security, energy independence, resource conservation, and environmental protection must all be considered.

In March 1987, the Department of Energy submitted a report to the President entitled "Energy Security." NHTSA believes that the following quotation from that report represents a useful summary of the national security and energy independence aspects of the current energy situation: Although dependence on insecure oil supplies is * * * projected to grow, energy security depends in part on the ability of importing nations to respond to oil supply disruptions; and this is improving. The decontrol of oil prices in the United States, as well as similar moves in other countries, has made economies more adaptable to changing situations. Furthermore, the large strategic oil reserves that have been established in the United States (and to a lesser extent, in other major oil-importing nations) will make it possible to respond far more effectively to any future disruptions than has been the case in the past.

The current world energy situation and the outlook for the future include both opportunities and risks. The oil price drop of 1986 showed how consumers can be helped by a more competitive oil market. If adequate supplies of oil and other energy resources continue to be available at reasonable prices, this will provide a boost to a world economy. At the same time, the projected increase in reliance on relatively few oil suppliers implies certain risks for the United States and the free world. These risks can be summarized as follows: If a small group of leading oil producers can dominate the world's energy markets, this could result in artificially high prices (or just sharp upward and downward price swings), which would necessitate difficult economic adjustments and cause hardships to all consumers.

Revolutions, regional wars, or aggression from outside powers could disrupt a large volume of oil supplies from the Persian Gulf, inflicting severe damage on the economies of the United States and allied nations. Oil price increases precipitated by the 1978-79 Iranian revolution contributed to the largest recession since the 1930's. Similar or larger events in the future could have far-reaching economic, geopolitical, or even military implications.

As to the environmental aspects of the energy problem, there has recently been increasing awareness of the greenhouse effect and the role of oil conservation in reducing carbon dioxide emissions. Carbon dioxide, which is one of the products of burning fossil fuels (coal, oil and gas), is a major greenhouse gas.

Based on the above, NHTSA concludes that there is a substantial, and relative to the mid-1980's, increasing, need for the nation to conserve energy.

III-C. Analysis of Alleged Adverse Impacts of Retaining the 27.5 mpg Standard

As discussed above, NHTSA is provided full discretion by section 502 concerning whether to amend CAFE standards. If the agency does amend the statutorily set 27.5 mpg standard, it must set the new standard at the "maximum feasible average fuel economy level." If NHTSA decides to exercise its discretion not to amend the statutory standard, it need not make a determination of the "maximum feasible average fuel economy level." Instead, the standard simply remains at the Congressionally set level. While Title V provides no express guidance concerning the appropriate circumstances for the exercise of its

discretion to amend, the agency is guided by the purposes of EPCA and by the statutory scheme of Title V.

NHTSA has previously identified two situations in which it would not exercise its discretion to amend the statutorily set 27.5 mpg standard, even if the "maximum feasible average fuel economy level" was below 27.5 mpg. First, in all of its rulemakings to reduce the standard, NHTSA has emphasized that it would not consider it appropriate to reduce the standard if a current inability to meet the standard simply resulted from manufacturers declining to take sufficient steps to improve their average fuel economy as required by the Act. This approach was cited approvingly by the D.C. Circuit Court of Appeals in upholding the agency's decision for MY 1986. The court stated:

Lowering the statutory standard whenever the larger manufacturers assert current inability to meet that standard would, without doubt, completely vitiate the statutory scheme; recognizing this, NHTSA stressed its determination that the inability of GM and Ford to meet the higher standard did not result from their "previously declining to take appropriate steps to improve their average fuel economy as required by the Act." *Public Citizen v. National Highway Traffic Safety Administration*, 848 F.2d 256, 264 (D.C. Cir. 1988).

Second, NHTSA has stated that it will not retroactively amend a generally applicable standard for a particular model year, since such action would be inconsistent with the statutory scheme. See 53 FR 15241, April 28, 1988; 53 FR 39115, October 5, 1988.

As suggested by those two examples, the decision whether to amend the statutory 27.5 mpg standard for a particular model year involves broader considerations than a determination of the "maximum feasible average fuel economy level." An important distinction that should be made with respect to NHTSA's decision concerning whether to amend the MY 1990 standard is between the actual impacts on manufacturers of retaining the 27.5 mpg standard and the theoretical impacts that would occur if manufacturers in fact achieved a CAFE of 27.5 mpg for MY 1990. Once the agency has decided to exercise its discretion to amend and endeavored to determine the "maximum feasible average fuel economy level," NHTSA has followed a consistent approach of analyzing the ability of manufacturers to meet the standard. It has not included as part of its calculation of the standard the ability to pay penalties for not meeting the

standard, or the availability of, or need for, credits. (For a discussion of the reasoning behind that approach, particularly as to credits, see 51 FR 27224, July 30, 1986.) However, these latter factors are crucial to the actual impacts of the agency's decision.

The availability of carryforward credits to GM and Ford is of particular significance to the actual impacts of retaining the 27.5 mpg standard for MY 1990.

Ford projects achieving a MY 1990 CAFE level of 26.6 mpg for its domestic fleet. By way of comparison, Ford's mid-model year report for 1988 indicated that its MY 1988 CAFE will be 26.4 mpg, and its December 21, 1988 pre-model year report for 1989 indicated that it expects to achieve a MY 1989 CAFE of 26.6 mpg. While Ford projects a MY 1990 CAFE that is 0.9 mpg below the statutory standard, it stated at the September 14 public hearing that it would not do anything different (i.e., increase its efforts to improve its CAFE) if the standard remained at 27.5 mpg than if it were reduced, since it has a compliance plan using available carryforward credits earned during MY 1987-88. The MY 1987 credits will expire if they are not used during MY 1990.

GM projects achieving a MY 1990 CAFE level of 27.0 mpg for its domestic fleet. By way of comparison, GM's mid-model year report for 1988 indicated that its MY 1988 CAFE will be 27.6 mpg and its December 30, 1988 pre-model year report for 1989 indicated that it expects to achieve a MY 1989 CAFE of 27.2 mpg. The issue of whether GM would have any carryforward credits available for MY 1990 was dependent throughout much of this proceeding on the outcome of a case before the U.S. Court of Appeals for the D.C. Circuit, *Center for Auto Safety v. Thomas*, which was decided on September 16, 1988. Now that the *en banc* court has vacated its earlier ruling and reinstated EPA's action, it is clear that GM will have carryforward credits earned in MY 1988 that could be applied against a MY 1990 shortfall. In addition, GM's December 1988 pre-model year report for MY 1989 indicates that company is likely to earn additional credits during MY 1989. GM's MY 1988 credits alone are more than sufficient to offset its projected MY 1990 shortfall against the existing 27.5 mpg standard.

NHTSA believes that, when manufacturers have substantial carryforward credits available for a particular year, neither the statute nor the legislative history contemplated that the agency should necessarily reduce the statutory 27.5 mpg standard for that year, even if the manufacturers have made reasonable efforts to comply and

the "maximum feasible average fuel economy level" might be below 27.5 mpg. This is particularly true when the need of the nation to conserve energy is steadily increasing. The three-year carryforward/carryback credit provisions were established in the Automotive Fuel Efficiency Act of 1980. The House report states that "the Committee believes these changes will act as an incentive to manufacturers to exceed the standards now set whenever they can in order to build up credits to act as safeguards against shortfalls that might occur in the future." House Report 96-1026, p. 20. If NHTSA always reduced a standard in the event that the major domestic manufacturers expected a shortfall, there would be no incentive for those manufacturers to try to build up credits against future shortfalls, and carryforward credits would never in fact be used against such shortfalls.

Because of the availability of MY 1987 and/or MY 1988 carryforward credits that have already been earned by GM and Ford, and the likely availability of credits from MY 1989, NHTSA concludes that retention of the 27.5 mpg standard for MY 1990 will not have any significant adverse effects on those manufacturers. This conclusion takes account of risks to those manufacturers' projections. Even if GM and Ford achieve MY 1990 CAFE levels somewhat below their projections, they will still have sufficient credits to offset the shortfall. (NHTSA is not providing specific calculations of how far GM and Ford could go below their projections and still have available credits, because such calculations would reveal volume projections that are subject to claims of confidentiality.)

Assuming that GM and Ford used carryforward credits to offset a MY 1990 shortfall, the expended credits would not be available for future model years. For Ford, which has MY 1987 and 1988 credits and expects a small amount of MY 1989 credits as well, the MY 1987 credits would in any event expire if they are not used in MY 1990. GM would need to use most of its MY 1988 credits for MY 1990, although a small portion of the MY 1988 credits and all of its expected MY 1989 credits would be available for MY 1991.

NHTSA now turns its attention to the potential impacts on other manufacturers of retaining the 27.5 mpg standard. A number of manufacturers are expected to easily meet the standard. Chrysler projected in April 1988 that it would achieve a MY 1990 CAFE of 27.9 mpg. As NHTSA has discussed in prior rulemakings, Chrysler's CAFE has been higher than that of GM or Ford in recent years primarily because it does not compete,

or compete as heavily, in all the market segments in which GM and Ford sell cars, particularly the large car market.

The Japanese and other Asian manufacturers are expected to easily exceed the 27.5 mpg standard, in light of their traditional strength in smaller cars. Nissan projects a MY 1990 CAFE level of 28.1 mpg to 28.6 mpg. While the agency does not have MY 1990 CAFE projections for the other Asian manufacturers, their expected MY 1989 CAFE levels, as reported in their pre-model year reports, are well above 27.5 mpg. Daihatsu anticipates achieving a MY 1989 CAFE of about 45.3 mpg, Honda 31.5 mpg, Hyundai 32.9 mpg, Isuzu 37.3 mpg, Mazda 29.3 mpg, Mitsubishi 30.6 mpg, Subaru 31.9 mpg, Suzuki 38.5 mpg, and Toyota 31.7 mpg.

The import fleets of GM, Ford and Chrysler also are expected to easily exceed 27.5 mpg for MY 1990. GM projects a MY 1990 CAFE level of 38.3 mpg for its import fleet, and Ford projects a CAFE level of 30.6 mpg. While the agency does not have a MY 1990 CAFE projection for Chrysler's import fleet, that company's pre-model year report indicated that its import fleet will achieve a CAFE level of 29.9 mpg for MY 1989.

Most of the European manufacturers are expected to be below the 27.5 mpg level for MY 1990. Austin Rover projects a MY 1989 CAFE level of 23.5 mpg, but did not project a figure for MY 1990. BMH projects a MY 1990 CAFE level of 21.9 mpg, Jaguar 21.5 mpg, Mercedes-Benz 21.7 mpg, Peugeot 24.6 mpg, Porsche 23.0 mpg, Saab 26.6 mpg, and Volvo 25.7 mpg. The agency does not have MY 1990 projections for Alfa-Romeo, Volkswagen or Yugo. Those companies' pre-model year reports indicated that their MY 1989 CAFE levels will be 25.3 mpg, 30.1 mpg, and 34.2 mpg, respectively.

Most European manufacturers would face two options: (1) Paying the statutory penalties associated with failure to comply with fuel economy standards, or (2) drastic product actions which, in the case of some, could require radical changes in the mix of cars they import. Several of the European companies have faced a similar choice during the past several model years and have in each instance chosen to pay the penalties. Thus, the actual impact on the European manufacturers of retaining the 27.5 mpg standard would be, for the most part, the paying of penalties.

One of the petitioners requesting a reduction in the 27.5 mpg standard, the Competitive Enterprise Institute (CEI), argued that retention of the standard would have an adverse impact on safety. After the agency's NPRM was

published, CEI and several other commenters again asked the agency to conclude that CAFE standards result in vehicle downsizing, and that downsizing, in turn, degrades safety. CEI and the other commenters advocate a CAFE standard around 24.0 mpg, which they believe would be the CAFE level of the fleet in the absence of CAFE standards.

CEI's argument is based on its claim of finding a direct relationship between vehicle weight and vehicle safety and on its conclusion that the CAFE program has caused manufacturers to reduce vehicle size. CEI relies on the premise that heavier cars are generally safer for vehicle occupants than smaller cars, other things being equal. CEI then notes that downsizing (reducing vehicle weight and exterior dimensions) has been used extensively by the manufacturers as a means of improving CAFE. CEI states that these reductions in car size and weight have resulted in less protection for occupants of these cars. CEI concludes that the CAFE standards are responsible for current car sizes and weights and thus, the CAFE standards also are responsible for a reduction in the level of safety otherwise available to the vehicle occupants. CEI further asserts that if there were no CAFE standards, or if the standard were set so low as to be the essential equivalent of no standard, the size and weight of current cars would be significantly greater.

In support of these assertions, CEI attached a copy of a paper entitled "The Effect of Fuel Economy Standards on Automobile Safety" by Robert W. Crandall and John D. Graham (1988). For convenience, this paper is referred to as "Crandall/Graham" throughout the remainder of this discussion. Crandall/Graham estimated that a 27.5 mpg standard for the 1990 model year would result in 2,200 to 3,900 additional occupant fatalities and 11,000 to 19,500 additional serious injuries to occupants, as compared to expected fatalities and serious injuries absent any CAFE standard.

CEI concluded its argument with the following statement of its position:

Neither Congress nor this agency has made any express determination that energy conservation under CAFE should require the loss of human life. It is CEI's position that, absent such a determination, a CAFE standard which *does* result in the loss of life is impracticable and is beyond the "need of the Nation to conserve energy" under [15 U.S.C.] subsection 2002(e). In short, such a standard has no statutory authorization. (Emphasis in original).

Other commenters also addressed the question of whether there would be

safety impacts associated with the 1990 model year CAFE standards. Most of the other commenters that addressed the safety issue associated themselves with the Crandall/Graham theory. These commenters included Consumer Alert, the Heritage Foundation, and the Council of Economic Advisors under then-President Reagan. However, none of these commenters offered any independent assessment of the issue.

Making a similar point, but based on different information, was the Insurance Institute for Highway Safety (IIHS). IIHS claimed that car size (defined as wheelbase length), as opposed to weight, is an important factor in the protection afforded to vehicle occupants, because large cars, due to their larger crush space, offer greater occupant protection than small cars. IIHS asked the agency to carefully evaluate the effects of the CAFE standard for the 1990 model year, to ensure that the CAFE standard will not degrade the level of occupant protection offered in 1990 cars by forcing manufacturers to decrease the size of those cars. The IIHS testimony at the public hearing stated:

* * * There is a point beyond which weight cannot be reduced without making vehicles smaller and thereby compromising safety. Furthermore, it seems probable that much of the potential weight reduction possible from the use of lighter weight materials has already been accomplished. Therefore, NHTSA must carefully evaluate the regulatory effects of the fuel economy standards to ensure that they do not degrade safety by forcing decreases in car size. At this time, it seems certain that any toughening of the CAFE requirements would lead to smaller and therefore less safe cars.

Conversely, IIHS suggested that safety could be affected negatively by a lower CAFE standard for MY 1990, if a lower standard results in larger numbers of larger displacement, high performance engines. IIHS suggested that larger engines would lead to greater performance, and that increases in performance increase the chances of a car being in a crash and the chances of the occupants being killed or injured. The National Safety Council filed comments making points similar to those raised by IIHS.

The Center for Auto Safety (CFAS), on the other hand, stated at the public meeting that there is no evidence that CAFE standards have a negative impact on the safety of vehicle occupants. CFAS stated that, in 1975, when the average fuel economy of the new car fleet was about 14 mpg, there were 3.6 fatalities per 100 million vehicle miles traveled. In 1988, when the average fuel economy of the new car fleet was about

28.7 mpg, fatalities per 100 million vehicle miles traveled had decreased to 2.4. According to CFAS, these statistics suggest that manufacturers can improve both safety and fuel economy at the same time.

CEI's comments on the MY 1989-1990 NPRM made two additional points about the safety implications of CAFE standards. First, CEI alleged that smaller cars are less compatible with roadside objects, such as guardrails and break-away light poles, that were designed for a heavier vehicle population. CEI suggested that this poses additional hazards to occupants of smaller cars. Second, CEI stated that it knows of no evidence to suggest that cars with higher performance, because of larger engines, negatively affect the safety of occupants. Moreover, CEI argued that even if high performance cars present a real safety hazard in their own right, such cars would have little impact on overall safety because of their small market share. In follow-up comments submitted in October 1988, CEI took issue with NHTSA's reliance on the fact that not *all* CAFE improvements come at the price of weight reduction, because CEI contends that any weight reduction will result in lower safety levels.

In its comments on the NPRM, CFAS stated that it disagreed with CEI's basic thesis that CAFE standards have a negative impact on safety by forcing manufacturers to sell less safe, smaller cars. According to CFAS, fuel-efficient large cars can be and have been built, while small cars with very effective occupant protection can be and have been built. Further, CFAS suggested that any reduction of the CAFE standard for the 1990 model year would result only in higher performance and bigger engines in existing car designs, which would negatively affect occupant safety, instead of resulting in larger vehicles.

NHTSA notes that it considered and rejected a similar contention by CEI with respect to the safety consequences of the CAFE standards for the 1987-1988 model year CAFE standards. See 51 FR 35612-35613. In commenting on the NPRM for MY 1989-90, CEI made arguments similar to those made previously, but also relied on the Crandall/Graham analysis discussed above.

The Crandall/Graham study relies on the assumption that the CAFE program has forced the downsizing of the fleet and is responsible for the fact that the current fleet of new cars is lighter than it would have been in the absence of CAFE. The agency agrees that cars in the new car fleet are, on average, about 1000 pounds lighter now than they were

in 1975. But, as the agency has noted several times in the past, the reasons for this downsizing is unclear; i.e., whether it was the result of consumer demand for more fuel-efficient models or a result of the CAFE standards. See, e.g., the preamble to the final rule for MY 1987-1988, 51 FR 35613. And, most downsizing occurred in the late 1970's and early 1980's, when manufacturers were exceeding the applicable CAFE standards. The agency also observes that the average vehicle weight of the new car fleet has not changed appreciably since the early 1980's, although the average fuel economy of the fleet has steadily improved. Thus, the agency does not agree that the CAFE program is the primary reason for the fact that the average new car is lighter than it was a decade ago, or in fact that there is a necessary relationship between the CAFE program and vehicle weight. While the agency has indicated in the past that weight reduction is a method to be used to improve CAFE, the statistics just cited do not tend to show a direct relationship between manufacturer weight reduction activity and improved CAFE.

With regard to this proceeding, NHTSA concludes, for the reasons discussed below, that there is no evidence demonstrating adverse safety consequences that would be associated with retaining the 27.5 mpg standard in MY 1990.

First, it is clear that there is not a direct relationship between a manufacturer's CAFE and the average weight of its fleet. For example, in MY 1988, the average weight of the GM fleet was 3329 pounds, at a CAFE of 27.6 mpg, while the Ford fleet weighed an average of 3276 pounds, with a CAFE of 26.4 mpg. Thus, GM's fleet was both heavier and more fuel efficient than Ford's. This example illustrates the point that not all CAFE gains come by reducing weight.

Further, the new car fleet as a whole illustrates the same point. The overall new car fleet (all domestics and imports combined) had an average fuel economy of 28.2 mpg in MY 1987; yet, the average inertia weight of a new car in MY 1987 was 3100 pounds, a two pound increase in weight over the average weight of a 1982 new car, when the overall fleet average fuel economy was only 26.6 mpg.

Even more specifically, GM and Ford, the two manufacturers most affected by this rulemaking, have been increasing their CAFE and fleet weight. For example, GM's estimated MY 1990 fleet weight is nearly 100 pounds higher than that for MY 1986, but its CAFE is also higher by 0.4 mpg. Similarly, Ford's MY 1990 fleet weighs nearly 150 pounds

more on average than that for MY 1983, but its CAFE is nearly 1 mpg higher in MY 1990. Clearly, there are methods of improving fuel economy that do not depend on downsizing or weight reduction.

Second, based on the record of this proceeding, NHTSA concludes that the large manufacturers are unlikely to take any actions to add weight to the models already planned for sale during MY 1990, regardless of whether the agency were to reduce the standard. This conclusion is supported in the record by the testimony of GM and Ford, both of which testified at the hearing that they would not make design changes (such as adding or deleting weight) to their MY 1990 models as a result of this rulemaking. The manufacturers also believe that consumers who intend to purchase a larger vehicle will do so; they will not be "forced" into a smaller vehicle than wanted. GM and Ford stated that, if they cannot produce such a vehicle, due to CAFE constraints, then the consumer will buy a large car from another manufacturer, or will buy a minivan, or will keep his or her older, large car. As previously noted, the agency does not believe GM and Ford will in fact encounter CAFE constraints in MY 1990, due to the availability of carryforward credits. However, in a situation where such constraints would occur, the agency agrees with the manufacturers that any one of those alternative consumer outcomes is far more likely than the possibility that the consumer will buy a smaller car than he or she wanted to buy.

CEI commented anew in October 1988 that this rationale is not a viable option for safety problems, since CEI believes that owners opting for a van or keeping their older cars is not safe, since minivans are not subject to the same safety standards as passenger vehicles, and old cars were not subject to certain Federal motor vehicle safety standards at the time of their manufacture.

NHTSA strongly disagrees with CEI's characterization of the safety of minivans. As the agency noted in its "Safety Programs for Light Trucks and Multipurpose Passenger Vehicles" report to Congress (April 1988), "The fatality rate for all light trucks is not appreciably different from the fatality rate for passenger cars" and "The fatality rate for vans, including minivans, is less than average; in fact, it is close to that of large cars * * * [and superior to that of smaller cars]" (See p. 3). More specifically, the fatality rates per million registered vehicles for 1986, the latest year for which data were available for the report, were 211.2 for cars and 211.6 for all light trucks

(pickups, vans, and utility vehicles). Moreover, the rate for vans, the vehicle type most likely to be a substitute for passenger cars, has a lower than average fatality rate, 140, which is two-thirds that for the average passenger car. As the agency has often stated, the absence of specific standards for specific vehicle types does not necessarily indicate a lack of safety for such vehicles.

While it is technically true that minivans are not subject to some of the Federal safety standards applicable to passenger cars (e.g., FMVSS 216, *Roof Crush Resistance*), that factor has little if any bearing on the overall levels of safety provided by minivans. That important "bottom-line" finding is aptly demonstrated by the statistic noted above, and can easily be explained when one remembers that "Federal standards" are not the sole (or even primary) determinant of vehicle safety. First, most passenger-car safety standards do in fact apply to minivans. Second, many minivans offer safety performance (provided by manufacturers on a voluntary basis) at a level similar or equal to that required by a passenger-car standard, so that the non-applicability of the standard has little or no real-world effect. (For example, NHTSA understands that most minivans which have been tested do, in fact, meet FMVSS 216 performance levels.) Third, NHTSA has in fact been extending passenger-car standards to minivans and other light vehicles where appropriate. See, e.g., extension of FMVSS 208 dynamic testing requirements (52 FR 44898, November 23, 1987), NPRM to require head restraints (53 FR 50047, December 13, 1988), NPRM to require rear-seat lap/shoulder belts (53 FR 47982, November 29, 1988), and discussion in April 1988 light truck/multipurpose passenger vehicle report (pp. 22-30). Finally, minivans may in fact offer inherent superior crashworthiness protection to occupants as compared to passenger cars, due their larger size and weight.

Of course, for reasons previously discussed, NHTSA does not agree that a 27.5 mpg standard for MY 1990 is likely to have a constraining effect on the domestic manufacturers, and thus little if any consumer diversion from cars to minivans would be expected as a result of the CAFE standards (as opposed to natural market forces). But assuming arguendo that such a CAFE-induced diversion did take place, the agency has no reason to believe that safety would be adversely affected as a result.

While the agency generally agrees with the principle that, in multi-vehicle

crashes, heavier cars are safer than lighter cars, other things being equal, it does not believe that principle has any significant implications for a decision whether to retain the 27.5 mpg statutory standard.

In response to the CEI comment that neither this agency nor Congress has considered the potential safety consequences of the CAFE standards, the agency notes that it has considered the safety impacts of CAFE standards in its rulemaking actions since the beginning of that program. The agency's first final rule on CAFE establishing passenger car standards for the 1981-1984 model years included a discussion of the safety impact of the standards. See 42 FR 33534, 33551, June 30, 1977. The relationship between safety and CAFE standards was also discussed in the final rule amending the MY 1986 passenger car fuel economy standard (50 FR 40547-40548, October 4, 1985), the final rule amending the 1987-88 passenger car fuel economy standards (51 FR 35612-35613, October 6, 1986), the NPRM for the MY 1989-90 standards (53 FR 33094-95, August 29, 1988), the MY 1989 final rule (53 FR 39292, October 6, 1988), and in this notice. Hence, the agency does not agree with the contention that it has not considered the safety issue in administering the CAFE program.

As to Congressional consideration of the safety consequences of CAFE, the agency points to the 1974 report to Congress from the Department of Transportation and the Environmental Protection Agency entitled "Potential for Motor Vehicle Fuel Economy Improvements: Report to the Congress", October 24, 1974. This report was mandated by Congress and expressly considered by it during its deliberations on the legislation to establish the CAFE program. The report contained a discussion of the possible trade-offs in the areas of improved fuel economy, lower emissions, and increased occupant safety. The report summary noted that a sustained or increased shift to small cars, without a concurrent upgrading of their occupant protection capability, would likely lead to an increase in the rate of highway deaths and serious injuries. Thus, the agency cannot agree that Congress was unaware of the potential safety consequences of a downsized fleet of cars. Since then, there has been a significant upgrading of the safety of new cars of all sizes. As a result of a 1984 rulemaking action amending FMVSS 208, at least 40 percent of the MY 1989 cars are being equipped with

air bags or automatic belts), and beginning in MY 1990 all new cars will be so equipped. Further, NHTSA has issued proposals to upgrade the side impact protection of new cars (see 53 FR 2239, January 27, 1988, proposing to amend FMVSS 214) and to require rear-seat lap/shoulder belts in cars and light trucks (see 53 FR 47982, November 29, 1988, proposing to amend FMVSS 208). And there have been voluntary improvements by manufacturers too, as evidenced by improving scores on New Car Assessment Program tests and growing availability of safety features such as anti-lock brakes.

In sum, the agency agrees with the commenters that the possibility of tradeoffs between the various types of vehicle performance (fuel economy, safety, emissions, etc.) should be considered in fuel economy rulemaking proceedings. Just as EPA attempts to determine whether the potential adverse fuel economy effects of its emissions standards can be offset by technological means, NHTSA considers the extent to which there might be adverse effects on safety of a CAFE standard that forced manufacturers to do substantial additional downsizing and the extent to which those effects might be offset through design changes. Since GM and Ford have stated that they are unlikely to alter their product plans or reduce vehicle weight in response to a decision to retain the 27.5 mpg standard, the agency concludes that there will not be any adverse safety consequences associated with this decision. Consistent with its past regulatory practices, the agency would carefully evaluate whether there would be any such adverse effects in future CAFE rulemakings.

III-D. Potential Impacts of Retaining the 27.5 mpg Standard on Energy Conservation

As NHTSA recognized in the rulemakings for MY 1986-89, a single year decision to either retain the 27.5 mpg statutory standard or to make a slight reduction in that standard will, at most, have a small, unquantifiable impact on energy conservation. NHTSA notes the following additional points with respect to MY 1990. First, manufacturers have long since completed their product plans for MY 1990 and do not have time to make any significant technological changes that would either increase or decrease fuel economy. Second, the range of standards proposed by NHTSA, 26.5 mpg to 27.5 mpg, was narrow. Third, the decision for MY 1990 covers only one model year. Fourth, given their credit banks, both GM and Ford can easily

comply with the MY 1990 standard of 27.5 mpg by use of carryforward credits, i.e., ones that have already been earned.

While the recent decisions to slightly reduce the statutory standard have not had a quantifiable impact on energy conservation, NHTSA recognizes that the impacts of reductions could become significant if the reductions had continued for a large enough number of model years. Similarly, NHTSA believes that the potential actual impacts on energy conservation that result from a decision to retain the 27.5 mpg statutory standard for MY 1990 are largely related to multi-year considerations. If NHTSA retains the statutory standard for MY 1990, the MY 1988 credits used by GM or Ford for MY 1990 would not be available for MY 1991, although there would be some credits available to be carried forward to that model year. Conversely, a decision to reduce the MY 1990 standard would result in larger credit banks for GM and Ford.

As discussed above, the agency believes that the actual impact on most European manufacturers of retaining the 27.5 mpg standard would be the paying of penalties. A reduced standard, in the 26.5 to 27.5 mpg range, would also result in payment of penalties, but to a lesser degree. The penalties provide at least some incentive for those manufacturers to make further improvements in fuel economy. The decision should have little, if any, impact on Asian manufacturers, which substantially exceed the 27.5 mpg standard.

Some commenters stated that retention of the 27.5 mpg statutory standard for MY 1990 would not result in any energy conservation benefits on the basis that if higher standards require GM and Ford to limit production of large cars and engines, consumers will find other ways to meet their needs. For example, consumers might keep their existing large cars longer or purchase a large truck or large imported car. NHTSA believes that two points should be made about this argument. First, both GM and Ford will have sufficient credits to offset projected MY 1990 shortfalls without limiting production of large cars and engines. Second, the 27.5 mpg statutory standard was never intended to require product restrictions. The standard was set years in advance by Congress for the purpose of creating an incentive for manufacturers to increase their fuel economy by technological means.

III-E. Rationale for Decision

In establishing the fuel economy regulatory program, Congress had one basic purpose: reducing U.S.

consumption of petroleum by automobiles. Congress recognized the need for flexibility in achieving that purpose, however, and sought to provide that flexibility in a number of ways. These include approximately a decade of leadtime for the 27.5 mpg statutory standard, the averaging approach inherent in CAFE standards, the credit provisions, and NHTSA's amendment authority.

For the past four years, NHTSA has exercised its authority to reduce the 27.5 mpg standard, consistent with the flexibility provided by Congress. The records for those rulemakings demonstrated that while GM and Ford, constituting a substantial share of the industry had made plans to achieve the 27.5 mpg standard for those model years, those plans had been overtaken by unforeseen events. In particular, while gasoline prices had been expected to rise throughout the 1980's, they instead fell dramatically. Between 1981 and 1985, real gasoline prices dropped a total of 25 percent, from \$1.76 per gallon to \$1.31 (1988 dollars). During 1986, gasoline prices unexpectedly dropped another 24 percent, to \$0.99 (1988 dollars), and have remained at a low level. With lower gasoline prices, consumer demand differed from that expected by GM and Ford in developing their MY 1986-89 product plans, with consumers demanding larger and more powerful cars.

While NHTSA reduced the statutory standards for MY 1986-89, it also emphasized that manufacturers had a continuing obligation to attempt to meet the 27.5 mpg standard for future model years. The agency also emphasized that if a particular product plan becomes infeasible, manufacturers must pursue additional compliance plans to the extent possible within available time.

NHTSA is now faced with the decision of whether it should exercise its discretion to reduce the 27.5 mpg statutory standard for a fifth consecutive year. After carefully considering the comments and other available information, NHTSA has decided not to reduce the statutory standard. There are several reasons for this decision, some of which have been discussed in greater detail above.

First, in light of the increasing need for energy conservation, discussed at length above, NHTSA does not believe that the statutory standard should be reduced absent very strong reasons to do so. In 1985, when NHTSA first began reducing the statutory standard, the agency was strongly influenced by the fact that, at least in the near term, there appeared to be a lessened need to conserve energy from a national security and energy

independence standpoint. Both the overall import share of the nation's oil supply and the share from OPEC were substantially below the levels when Congress enacted EPCA. But in just the past four years, those two shares have now risen to levels similar to those of 1975 and are continuing to rise. This increase in imports is reason enough by itself to conclude that the need to conserve energy is significantly increasing.

While the existence of the Strategic Petroleum Reserve and the absence of petroleum price controls strengthen the nation's energy position as compared to 1975, and the fuel efficiency of the new-car fleet has improved substantially, it is nonetheless clear that the nation's overall need to conserve energy—and specifically, to control petroleum imports and consumption—is substantial, and again on the rise. Moreover, forecasts by EIA regarding petroleum consumption, supplies and imports, and information from EPA and others, indicate that this trend is likely to continue.

Second, the manufacturers have now been on notice for several years that they need to develop compliance plans that compensate for the effects of low gasoline prices. While both the drop in gasoline prices during the early 1980's and the second drop during 1986 were unanticipated and initially expected to be temporary, the extended period of low gasoline prices during the 1980's has made it clear that gasoline prices may remain low over the longer term. Since low gasoline prices contribute to greater consumer demand for larger cars and engines, this has made it more difficult for some manufacturers to meet higher CAFE standards. The agency recognized this difficulty and provided relief from the 27.5 mpg standard for several years. However, as the agency has previously noted, manufacturers need to find (and have a statutory duty to strive for) practicable ways of offsetting the effects of that demand. Under the circumstances, however, the agency need not reach the issue of whether either GM or Ford made "reasonable efforts" to comply with the statutory standard. In other words, even if it could be determined that GM and/or Ford had made "reasonable efforts" to achieve a 27.5 mpg CAFE in MY 1990, this alone would not justify reducing the statutory standard.

NHTSA does not believe that the record, on balance, warrants reduction in the MY 1990 statutory standard. As discussed above, retention of the MY 1990 27.5 mpg standard need not result in any adverse impacts (e.g., product restrictions or reduced vehicle sales) for

GM or Ford, since those manufacturers have already earned more than sufficient carryforward credits to offset expected shortfalls. The use of those credits will prevent the various adverse impacts on GM and Ford, and their employees, that were cited by commenters. Where one part of the statutory scheme (i.e., credits) provides sufficient flexibility, it is less appropriate for the agency to exercise its discretion to provide the same flexibility by another means (i.e., standard-setting).

NHTSA also is not persuaded that the potential impacts on several limited-line European manufacturers constitute sufficient cause, especially under present circumstances, for the agency to reduce the standard. The statutory scheme chosen by Congress involves a single standard for all manufacturers other than certain low volume manufacturers. In previous rulemaking notices, in the context of setting CAFE standards, NHTSA has concluded that setting the standards at the level achievable by the least capable of the manufacturers (or group of manufacturers) with a substantial share of the market, instead of the lower CAFE levels of limited line manufacturers of larger, luxury cars, is most consistent with the goals of EPCA. See 53 FR 39298-99, October 6, 1988. NHTSA believes that this same approach is appropriate with respect to a decision whether to exercise its discretion to reduce the statutory 27.5 mpg standard.

The combined market share of the approximately nine limited-line European manufacturers which cannot meet the 27.5 mpg statutory standard is about 3.5 percent of all cars sold in this country. As discussed in the MY 1989 final rule, setting the standards at the capabilities of some of these manufacturers, such as Mercedes-Benz, would vitiate the fuel economy program and require NHTSA to disregard Congress' judgment regarding CAFE standards.

While the 27.5 mpg standard is above the capabilities of those nine European manufacturers, a 26.5 mpg standard is still above the capabilities of eight of those manufacturers. The one manufacturer (Saab) that could likely meet the 26.5 mpg standard may have credits available from MY 1988 to offset part or all of any shortfall. Thus, regardless of whether the standard remained at the 27.5 mpg level or was reduced to as low as 26.5 mpg, several European manufacturers would face the two options cited above: (1) Paying the statutory penalties associated with

failure to comply with fuel economy standards, or (2) drastic product actions which, in the case of some, could require radical changes in the mix of cars they import. The actual impact on the European limited-line manufacturers of retaining the 27.5 mpg standard as opposed to reducing the standard to as low as 26.5 mpg would likely be the number of companies which faced paying penalties, eight or nine, and the amount of the penalties. On a per-car basis, the maximum difference in penalties between a 27.5 mpg standard and a 26.5 mpg standard would be \$50.

NHTSA does not believe that the impacts on the limited-line European manufacturers, which have a combined 3.5 percent market share, justify reducing the statutory 27.5 mpg standard that applies to almost 100 percent of the industry. Such a reduction would essentially eliminate any role of the fuel economy standards as an incentive for the industry as a whole to improve fuel economy. The agency appreciates that the problems of these manufacturers are largely caused by the market segments they serve. However, since Congress made the decision to regulate fuel economy by means of a single standard which applies to all manufacturers (other than certain low-volume manufacturers), the agency believes that it would be inconsistent with the statute not to take industrywide considerations into account in the manner contemplated by the statute and its legislative history.

With respect to NRDC's comment that the agency should consider raising the CAFE standard above 27.5 mpg, NHTSA notes that a CAFE standard above 27.5 mpg was not within the scope of the NPRM and that, in any event, the statute requires that any amendment that has the effect of making a CAFE standard more stringent must be promulgated at least 18 months prior to the beginning of the model year to which it applies. MY 1990 begins in the fall of this year.

Since the agency is taking a different action for MY 1990 than it did for MY 1989, despite a number of similarities between the records for the two years, it believes that it should highlight the differences in those records. NHTSA views the rulemakings for MY 1986-89 as providing appropriate flexibility to the manufacturers to account for and adjust to unexpected changes in market conditions, especially lower gasoline prices, and time for them to respond to those changes. Throughout these rulemakings, the agency emphasized the need for manufacturers to continue to make efforts to comply with the statutory 27.5 mpg standard for future

model years. While the MY 1989 standard represented a reduction from the statutory level, it also represented an increase from the levels established by NHTSA for MY 1986-88. By exercising its discretion not to amend the MY 1990 standard, the agency is taking the next step of returning to the long-term statutory level. NHTSA believes that the record indicates that there is less of a need to provide flexibility to the manufacturers for MY 1990 than MY 1989, in part because the MY 1989 standard itself provided an additional year of flexibility. In addition, MY 1990 is one year later and is one year farther removed from the gasoline price declines of the early 1980's and 1986. A reduction in the MY 1990 standard would also represent an additional year of not retaining the 27.5 mpg statutory standard as an incentive to manufacturers to achieve CAFE's of 27.5 mpg.

While NHTSA's decision for MY 1990 in part reflects the current credit banks of GM and Ford, the agency notes that factor is not the sole reason for the agency's decision. Also, the agency again emphasizes that manufacturers have a continuing statutory obligation to meet the 27.5 mpg standard. As NHTSA observed in the MY 1986 proceeding:

While the agency believes that [certain] product plan changes * * * are consistent with statutory criteria, since they reflect changes in what is economically practicable, manufacturers continue to have an obligation to make all necessary efforts consistent with those statutory criteria to meet CAFE standards. To the extent that changes in product plans result in manufacturers not being able to meet a standard, the manufacturers must pursue additional means consistent with the factors of section 502(e) to meet the standard. 50 FR 40542, October 4, 1985.

The agency made similar statements in the MY 1987-88 and MY 1989 proceedings.

The rulemaking record of this and prior CAFE rulemaking proceedings indicate that while GM and Ford have made considerable improvement in the fuel economy of their passenger cars, there are still a number of fuel-efficiency enhancing methods that are not fully utilized throughout their fleets. These include further use of front-wheel drive; four-speed automatic transmissions; engine improvements such as four-valve designs, reduced friction, lean-burn fast-burn combustion, and electronic control; reduction of parasitic losses; aerodynamic and rolling resistance reductions; and material substitution. All of these methods are partially used by the GM and Ford fleets, as well as by other manufacturers. NHTSA believes

that the domestic manufacturers should be able to improve their fuel economy in the future by these and/or other technological means, without outsourcing their larger cars, without further downsizing or mix shifts toward smaller cars, and without sacrificing acceleration or performance. The agency recognizes that such technological changes require leadtime. However, the manufacturers have been on notice for several years that their plans for complying with the 27.5 mpg standard must be adjusted to take into account the possibility that gasoline prices will remain low. The agency also notes that, as a general matter, in seeking a reduction of a CAFE standard because of an event such as the 1986 drop in fuel prices, meeting the reasonable efforts test becomes increasingly more difficult as time passes, and leadtime increases. This point is implicit in the agency's rulemaking notices concerning the MY 1986-89 standards.

While NHTSA has concluded that the 27.5 mpg standard for MY 1990 will not cause adverse impacts on GM or Ford other than reducing their pool of credits which can be used after MY 1990 in place of fuel economy improvements, the agency continues to be concerned about the competitive disadvantages and perverse effects that can result from the current statutory scheme. These include, among others, the relative benefit enjoyed by most Japanese and other Asian manufacturers under the law by virtue of their sales mix alone, and the lack of corresponding incentive for those companies to improve their fuel economy; and the perverse incentive for the domestic manufacturers to shift the production of their larger, less fuel-efficient cars abroad, so that those cars can be averaged together with their small imports. For a fuller discussion of these disadvantages and effects, see the final rule reducing the MY 1989 standard. The Department of Transportation plans to take account of these concerns in developing a legislative strategy concerning the future of the fuel economy program.

As discussed above, several commenters raised various environmental issues relating to the effect of a reduction of the 27.5 mpg standard on the amount of gasoline consumed, and thus on energy conservation and on impacts on the environment. Because NHTSA is not amending the statutory 27.5 mpg standard for MY 1990, it is not taking any major Federal action that will have a significant impact on the quality of the human environment. However, NHTSA

has decided to undertake a comprehensive, programmatic Environmental Impact Statement to examine any potential environmental impacts related to possible future agency actions in the CAFE program.

(15 U.S.C. 2002; delegations of authority at 49 CFR 1.50 and 501)

Issued on May 16, 1989.

Jeffrey R. Miller,

Deputy Administrator.

[FR Dec. 89-12151 Filed 5-17-89; 1:00 p.m.]

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Notices

Federal Register

Vol. 54, No. 97

Monday, May 22, 1989

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Office of the Secretary

Agriculture Biotechnology Research Advisory Committee Working Group on Classification of Unmodified Organisms

In accordance with the Federal Advisory Committee Act of October 1972 (Pub. L. 92-463, 86 Stat. 770-776), the U.S. Department of Agriculture (USDA), Science and Education, announces the following meeting of a working group of the Agriculture Biotechnology Research Advisory Committee (ABRAC):

The Working Group on Classification of Unmodified Organisms will meet at the U.S. Department of Agriculture in Room 104-A, "the Williamsburg Room," USDA Administration Building, 14th and Independence Avenue, SW., Washington, DC, 20250, on June 22-23, 1989, from 9:00 a.m. to approximately 5:00 p.m. on June 22, and from 9:00 a.m. to approximately 3:00 p.m. on June 23. The subject of the meeting will be the safety classification of unmodified organisms under guidelines for biotechnology research.

The meeting is open to the public. Persons may participate in the meeting as time and space permit. The public may file written comments before or after the meeting with the contact person specified below.

Further information may be obtained from Dr. Alvin L. Young, Executive Secretary, Agricultural Biotechnology Research Advisory Committee, U.S. Department of Agriculture, Office of Agricultural Biotechnology, Room 321-A, Administration Building, 14th and Independence Avenue SW., Washington, DC, 20250. Telephone (202) 447-9125.

Done at Washington, DC, this 11th day of May, 1989.

Orville G. Bentley,

Assistant Secretary, Science and Education.

[FR Doc. 89-12139 Filed 5-19-89; 8:45 a.m.]

BILLING CODE 3410-22-M

COMMISSION ON CIVIL RIGHTS

Maryland Advisory Committee; Agenda and Notice of Public Meeting

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights, that a meeting of the Maryland Advisory Committee to the Commission will convene at 10:00 a.m. and adjourn at 1:00 p.m. on Saturday, June 3, 1989, at the Quality Royale Hotel, 126 W Street, Annapolis, Maryland 21401. The Committee will receive orientation for new members and discuss a planned forum on emerging civil rights issues affecting Asian Americans in the State.

Persons desiring additional information, or planning a presentation to the Committee, should contact Committee Chairperson Lorretta Johnson or John I. Binkley, Director, Eastern Regional Division at (202) 523-5264, TDD (202) 376-8117. Hearing impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Eastern Regional Division at least five (5) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC, May 8, 1989.

Melvin L. Jenkins,

Acting Staff Director.

[FR Doc. 89-12121 Filed 5-19-89; 8:45 am]

BILLING CODE 6335-01-M

North Dakota Advisory Committee; Agenda and Notice of Public Meeting

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights, that the North Dakota Advisory Committee to the Commission will convene at 9:00 a.m. and adjourn at 5:00 p.m., on June 9, 1989, at the Sheraton Hotel, 6th and Broadway, Bismarck, North Dakota 58502. The purpose of the meeting is to gather information on

Native American housing and utility rate issues.

Persons desiring additional information, or planning a presentation to the Committee, should contact Committee Chairperson Bryce Steibel or Philip Montez, Director of the Western Regional Division (213) 894-3437, (TDD 213/894-0508). Hearing impaired persons who will attend the meeting and require the services of a sign language interpreter, should contact the Regional Division office at least five (5) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC, May 11, 1989.

Melvin L. Jenkins,

Acting Staff Director.

[FR Doc. 89-12122 Filed 5-19-89; 8:45 am]

BILLING CODE 6335-01-M

North Dakota Advisory Committee; Agenda and Notice of Public Meeting

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights, that the North Dakota Advisory Committee to the Commission will convene at 7:15 p.m. and adjourn at 8:15 p.m., on June 8, 1989, at the Sheraton Hotel (Executive Conference Room), 6th and Broadway, Bismarck, North Dakota 58502. The purpose of the meeting is to discuss the format of the forum scheduled for June 9, 1989.

Persons desiring additional information, or planning a presentation to the Committee, should contact Committee Chairperson Bryce Steibel or Philip Montez, Director of the Western Regional Division (213) 894-3437, (TDD 213/894-0508). Hearing impaired persons who will attend the meeting and require the services of a sign language interpreter, should contact the Regional Division office at least five (5) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC., May 11, 1989.

Melvin L. Jenkins,

Acting Staff Director.

[FR Doc. 89-12123 Filed 5-19-89; 8:45 am]

BILLING CODE 6335-01-M

DEPARTMENT OF COMMERCE**International Trade Administration**

[A-593-807]

Initiation of Antidumping Duty Investigation; Certain Residential Door Locks and Parts Thereof From Taiwan

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce, we are initiating an antidumping duty investigation to determine whether imports of certain residential door locks and parts thereof (hereinafter referred to as door locks) from Taiwan are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of door locks from Taiwan are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before June 8, 1989. If that determination is affirmative, we will make a preliminary determination on or before October 2, 1989.

EFFECTIVE DATE: May 22, 1989.

FOR FURTHER INFORMATION CONTACT: Eleanor Shea, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-0184.

SUPPLEMENTARY INFORMATION:**The Petition**

On April 24, 1989, we received a petition filed in proper form by the Ad Hoc Committee of Door Lock Manufacturers on behalf of the domestic door lock industry. In compliance with the filing requirements of 19 CFR 353.12, petitioner alleges that imports of door locks from Taiwan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

Petitioner has alleged it has standing to file the petition. Specifically, petitioner has alleged that it is an interested party as defined under section 771(9)(C) of the Act and that it

has filed the petition on behalf of a U.S. industry producing the product that is subject to this investigation. If any interested party as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act wishes to register support for, or opposition to, this petition, please file written notification with the Commerce officials cited in the **"FOR FURTHER INFORMATION CONTACT"** section of this notice.

United States Price and Foreign Market Value

Petitioner's estimate of United States Price is based on f.o.b. Taiwan prices to wholesalers, exclusive of U.S. customs and brokerage fees, ocean freight and insurance. These prices were adjusted for: (1) A credit expense and (2) foreign inland freight.

Petitioner's estimate of foreign market value (FMV) is based on gross prices at the manufacturer's facility in Taiwan to unrelated wholesalers, exclusive of any taxes, duties or freight. These prices were adjusted for: (1) Standard discounting and (2) packing expenses.

Based on a comparison of United States Price and FMV, petitioner alleges dumping margins ranging from 32 percent to 72 percent.

However, because certain adjustments to United States Price and FMV were inadequately substantiated, the Department has made the following adjustments:

In the calculation of United States Price, we have eliminated the credit expense and foreign inland freight adjustments.

In the calculation of Foreign Market Value, we have eliminated the packing expense adjustment.

Based on a comparison of United States Price and FMV, the Department estimates dumping margins ranging from 28 percent to 67 percent.

Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on certain residential door locks from Taiwan and found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of certain residential door locks from Taiwan are being, or are likely to be, sold in the United States at less than fair value. If our investigation proceeds

normally, we will make a preliminary determination by October 2, 1989.

Scope of Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the United States fully converted to the *Harmonized Tariff Schedule* (HTS), as provided for in section 1201 et seq. of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered, or withdrawn from warehouse, for consumption on or after that date is now classified solely according to the appropriate HTS item number(s).

The products covered by this investigation include the following three categories of residential door locks: (1) Tubular or cylindrical, knob-operated locksets with spring latches or dead latches, whether face-plated or drive-in type, including entry-handled sets; (2) dead locks, whether face-plated or drive-in type; and (3) lever-operated locksets, whether face-plated or drive-in type. All three categories are imported from Taiwan and sold in any of the following forms: Fully assembled, partially assembled, unassembled, or parts relating thereto. These locks are used in the United States residential door lock market. This petition does not cover door locks suitable for use with garage, overhead or sliding doors, or those suitable for use in the commercial market.

This merchandise is currently classifiable under HTS item 8301.40.6030. The HTS item number is provided for convenience and Customs purposes. The written description remains dispositive.

Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will allow the ITC access to all privileged and business proprietary information in our files, provided it confirms in writing that it will not disclose such information either publicly or under administrative protective order without the written consent of the Assistant Secretary for Import Administration.

Preliminary Determination by ITC

The ITC will determine by June 8, 1989, whether there is a reasonable indication that imports of certain residential door locks from Taiwan are

materially injuring, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, it will proceed according to statutory and regulatory procedures.

This notice is published pursuant to section 732(c)(2) of the Act.

Eric I. Garfinkel,

Assistant Secretary for Import Administration.

May 15, 1989.

[FR Doc. 89-12115 Filed 5-19-89; 8:45 am]

BILLING CODE 3510-DS-M

Applications for Duty-Free Entry of Scientific Instruments; University of Wisconsin—Madison et al.

Pursuant to section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651; 80 Stat. 897; 15 CFR Part 301), we invite comments on the question of whether instruments of equivalent scientific value, for the purposes for which the instruments shown below are intended to be used, are being manufactured in the United States.

Comments must comply with § 301.5(a) (3) and (4) of the regulations and be filed within 20 days with the Statutory Import Programs Staff, U.S. Department of Commerce, Washington, DC 20230. Applications may be examined between 8:30 a.m. and 5:00 p.m. in Room 2841, U.S. Department of Commerce, 14th and Constitution Avenue, NW., Washington, DC.

Docket Number: 87-181R2. Applicant: University of Wisconsin—Madison, Dept. of Biochemistry, 420 Henry Hall, Madison, WI 53706. **Instrument:** NMR Spectrometer, Model AM 400 WB. **Manufacturer:** Bruker Instruments Inc., Switzerland. Original notice of this resubmitted application was published in the *Federal Register* of June 28, 1987.

Docket Number: 89-138. Applicant: New England Deaconess Hospital, Laboratory of Pathology, 185 Pilgrim Road, Boston, MA 02215. **Instrument:** Electron Microscope, Model H-600-3. **Manufacturer:** Hitachi Nissei Sangyo America Ltd., Japan. **Intended Use:** The instrument will be used for studies of specimens removed during surgical procedures such as liver, kidney, lung, and skin for diagnosis so that patients can be treated. **Application Received by Commissioner of Customs:** April 20, 1989.

Docket Number: 89-139. Applicant: Baltimore Museum of Art, Art Museum Drive, Baltimore, MD 21218. **Instrument:** Infrared Reflectography Equipment, Model BG 250. **Manufacturer:** Vanandel

B. V. Rotterdam, The Netherlands.

Intended Use: The instrument will be used for the following research purposes:

(a) Examination of art works to reveal underdrawing and stages of the painting process in art historical research.

(b) Assistance in determining the authenticity of works of art in the Baltimore Museum of Art.

(c) Determination of the condition of works of art in problems of conservation.

(d) Instruction of students in art history, conservation, and museology in the operation of the equipment and the interpretation of the technical documents obtained when using infrared reflectography.

Application Received by Commissioner of Customs: April 20, 1989.

Docket Number: 89-140. Applicant: Prusiner Laboratory, Department of Neurology, University of California, San Francisco, HSE 781, Box 0518, 3rd and Parnassus, San Francisco, CA 94143.

Instrument: Electron Microscope, JEM-100 CXII. **Manufacturer:** JEOL, Japan. **Intended Use:** The instrument will be used for the study of prion pathogens which cause transmissible neurodegenerative diseases of animals and humans. Experiments will involve investigation of prion structure, the cell biology of prion proteins and pathogenic mechanisms of prion diseases.

Application Received by Commissioner of Customs: April 20, 1989.

Docket Number: 89-141. Applicant: Wright State University, Mechanical and Materials Engineering Dept., Dayton, OH 45435. **Instrument:** Electron Microscope, Model JEM-100 CXII. **Manufacturer:** JEOL, Japan. **Intended Use:** The instrument will be used for characterization of metallic alloys, structural ceramics and composites of these materials. Experiments will include bright field imaging, dark field imaging, diffraction, convergent beam imaging, micro-chemical mapping and surface topography. In addition, the instrument will be used in several courses covering the application of transmission electron microscopy to engineering materials and for Thesis Research. **Application Received by Commissioner of Customs:** April 25, 1989.

Docket Number: 89-142. Applicant: University of California, Purchasing Department, 2405 Bowditch Street, Berkeley, CA 94720. **Instrument:** 3-Syringe Stopped-Flow System, Model SFM-3/PC. **Manufacturer:** Bio-Logic, France. **Intended Use:** The instrument will be used for studies of the transport of solutes and water across the red cell

membrane, to relate this membrane structure, and to identify and elucidate the mechanisms of action of those components responsible for transport. The instrument will also be used for research training in the courses: Physiology 199—Supervised Independent Study and Research and Physiology 299—Individual Research in Physiology. **Application Received by Commissioner of Customs:** April 25, 1989.

Docket Number: 89-143. Applicant: Wayne State University, 75 Chemistry, Detroit, MI 48202. **Instrument:** Mass Spectrometer System, Model MS50 RF. **Manufacturer:** Kratos Analytical, United Kingdom. **Intended Use:** The instrument will be used to support research work in synthetic chemistry and biochemistry. Specifically, the instrument will be used to determine the identity of unknown compounds and to confirm the elemental composition of synthesized compounds. **Application Received by Commissioner of Customs:** April 26, 1989.

Frank W. Creel,

Director, Statutory Import Programs Staff.

[FR Doc. 89-12114 Filed 5-19-89; 8:45 am]

BILLING CODE 3510-DS-M

National Oceanic and Atmospheric Administration

National Fish and Seafood Promotional Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

TIME AND DATE: The meeting will convene at 8:30 a.m., Wednesday, June 7, 1989 and adjourn approximately 3:00 p.m., Thursday, June 8, 1989.

PLACE: The Mayflower Hotel, 1127 Connecticut Avenue, NW., Washington, DC 20036.

STATUS: NOAA announces a meeting of the National Fish and Seafood Promotional Council (NFSPC). The NFSPC, consisting of 15 industry members and the Secretary of Commerce as a non-voting member, was established by the Fish and Seafood Promotion Act of 1986 to carry out programs to promote the consumption of fish and seafood and to improve the competitiveness of the U.S. fishing industry.

The NFSPC is required to submit an annual plan and budget to the Secretary of Commerce for his approval that describes the marketing and promotion activities the NFSPC intends to carry out. Funding for NFSPC activities is provided for through Congressional appropriations.

Matters To Be Considered*June 7, 1989*

8:30 a.m.-5:00 p.m.—Chairman's opening remarks; approval of minutes from last meeting; Committee Chairmen's report; discussion of meeting agenda; press conference (National Press Club) formally introducing the Council's program; Executive Director's update; update/discussion on the 1990 American Seafood Challenge, the Anne Fletcher media tour, the 1989 American Seafood Challenge media tour, the New York City press event and other Council activities.

June 8, 1989

8:30 a.m.-3:30 p.m.—Update on the status of the Council's program by W.B. Doner Advertising and Edelman Public Relations; briefing on various seafood inspection issues; regional meetings/implementation session. Lunch break: 12:00 noon-2:00 p.m.

Portion Closed to the Public: None

FOR FURTHER INFORMATION CONTACT:

Jeanne M. Grasso, Program Coordinator, National Fish and Seafood Promotional Council, 1825 Connecticut Avenue, NW, Room 618, Washington, DC 20235. Telephone: (202) 673-5237.

Dated: May 16, 1989.

James E. Douglas, Jr.,

Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. 89-12120 Filed 5-19-89; 8:45 am]

BILLING CODE 3510-22-M

Permits for Taking Marine Mammals for Public Display

AGENCY: National Marine Fisheries Service, NOAA, Commerce.

ACTION: Notice of interim policy and request for comments.

SUMMARY: The National Marine Fisheries Service (NOAA Fisheries) announces and requests comments on an interim policy regarding education or conservation programs of applicants requesting permits to take marine mammals for public display. The interim policy interprets and incorporates recent amendments to the Marine Mammal Protection Act (MMPA) which require that NOAA Fisheries issue permits only to applicants which offer programs for education or conservation that are acceptable to the Secretary. The interim policy becomes effective upon publication and will be in effect until the conclusion of a comprehensive review of NOAA Fisheries' permit program pursuant to the MMPA and promulgation of revised permit regulations for public display permits.

ADDRESS: Comments may be addressed to Dr. Nancy Foster, Director, Office of Protected Resources and Habitat Programs (F/PR), NOAA Fisheries, 1335 East-West Hwy., Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT:

Dr. Nancy Foster, 301-427-2231.

SUPPLEMENTARY INFORMATION:

Amendments to the MMPA modifying provisions for issuing permits for taking marine mammals for purposes of public display were signed into law on November 23, 1988. NOAA Fisheries is conducting a comprehensive permit program review (54 FR 13099, March 30, 1989). This review is expected to result in revised permit regulations (50 CFR 216.31-216.34) which will implement these amendments to the MMPA. This notice of interim policy explains, for the benefit of applicants, how NOAA Fisheries will interpret and incorporate the new provisions for issuing permits for public display until such regulations are developed. Comments received during the permit program review will assist NOAA Fisheries in its development of a final version of the policy.

1. Legislative Background

Section 104(c) of the MMPA was amended by the addition of the following paragraph:

A permit may be issued for public display purposes only to an applicant which offers a program for education or conservation purposes that, based on professionally recognized standards of the public display community, is acceptable to the Secretary and which submits with the application information indicating that the applicant's facilities are open to the public on a regularly scheduled basis and that access to the facilities is not limited or restricted other than by the charging of an admission fee.

The legislative history of the 1988 Amendments provides an explanation of the requirement for education or conservation programs. The Senate Report No. 100-592, 100th Cong. 2d Sess. 28-29 (1988) states that:

to be eligible for a public display permit, an applicant must offer a program for education or conservation purposes as a component of its overall program.

The Senate Committee further stated that education or conservation need not be the sole or primary purpose of the applicant's program. The Committee recognized that it was important that display facilities educate the public about the life history, behavior, unusual sensory capabilities and other aspects of marine mammals through various techniques in conjunction with display.

The Committee also recognized the diversity of public display, stating that the amendments were not intended to deny the Secretary flexibility or to require the Secretary to regulate the specific content of or methods used in education or conservation programs. It was also stated that education and conservation programs should be based on professionally recognized standards of the public display community.

2. Programmatic Goals and Objectives

Public display of marine mammals can play an important role in achieving the purposes and policies of the MMPA. Specifically, the education and conservation components of public display programs can enhance widespread appreciation for and understanding of all marine mammals and their role in the marine ecosystem. An informed public is more likely to support research, conservation, and protection efforts directed at marine mammal populations in the United States and worldwide.

In proceeding to implement the new provisions of the MMPA, NOAA Fisheries has determined that its permit program for public display should meet the following objectives:

- a. Help ensure that there are opportunities for the public to learn about marine mammals (including depleted, endangered or threatened species which cannot be taken from the wild for public display) and their role in the marine ecosystem;
 - b. Enhance public appreciation for and understanding of the need for marine mammal conservation both in the United States and worldwide;
 - c. Contribute to an improved understanding of the ecology and population dynamics of marine mammals, including the facts which bear upon their ability to reproduce themselves successfully;
 - d. Inform the public about steps taken to protect marine mammals, including what individuals can do to further the purpose and policies of the MMPA;
 - e. Inform the public about the benefits of research, education, and conservation programs of marine mammals in captivity for marine mammal populations in the wild; and
 - f. Encourage the formulation, dissemination, and continued improvement of professionally recognized standards for education and conservation programs directed at marine mammals.
- For the purposes of implementing the MMPA and attaining these objectives, an applicant's education or conservation program must include a program of

formal or informal learning that conveys accurate information about the marine mammals being displayed and communicates in an effective manner a message and purpose that are consistent with the policies of the MMPA.

NOAA Fisheries recognizes that the content of education and conservation programs can vary as can the techniques used to communicate with the public. It is not the intent of NOAA Fisheries to regulate educational content other than to require that the information be accurate, current, and understandable, and that the overall message be consistent with the policies of the MMPA, resulting in an improved understanding of marine mammals and their role in the marine ecosystem. NOAA Fisheries will not regulate educational techniques of public display but rather will encourage facilities to conduct programs that foster positive attitudes towards the marine mammals being displayed and are attuned to the interests and backgrounds of visitors.

3. Implementation

Until such time as the permit regulations have been revised, public display facilities requesting permits to take marine mammals for public display will be asked to answer the following questions as evidence that the facility offers an education or conservation program that is acceptable to the Secretary:

What is the basic message and purpose of the education or conservation program?

List the techniques used to communicate the basic message and accomplish the purpose of the program.

Describe public access to the facility, including regularly scheduled hours and any restrictions to public access other than an admission fee.

In deciding whether an applicant offers an acceptable education or conservation program, NOAA Fisheries will consider the following criteria:

Whether an education or conservation program is in place as a component of the proposed public display;

Whether the basic message and purpose of the education or conservation program are accurate, consistent with the policies of the MMPA, and whether they include information about the life history, behavior, sensory capabilities or other aspects of marine mammals such as their role in the marine ecosystem;

Whether the facilities are open on a regularly scheduled basis and access is not limited or restricted other than by the charging of an admission fee.

Since professionally recognized standards for education or conservation programs directed at marine mammals are not readily available, NOAA Fisheries will identify specific actions

that it can undertake to help in the formulation and dissemination of widely endorsed guidelines. These guidelines should be designed to assist public display facilities in offering programs that are accurate, effective, and otherwise meet professional standards. In the long term, voluntary compliance to such guidelines will serve to implement the MMPA provisions and help attain the programmatic objectives presented above. NOAA Fisheries intends to consult with the public display community, marine education experts, and other interested members of the public during the course of the permit program review to identify specific actions it could undertake to facilitate the formulation of these guidelines.

Date: May 16, 1989

Nancy Foster,
Director, Office of Protected Resources and
Habitat Programs, National Marine Fisheries.
[FR Doc. 89-12211 Filed 5-19-89; 8:45 am]
BILLING CODE 3510-22-M

COMMISSION OF FINE ARTS

Meeting

The Commission of Fine Arts' next scheduled meeting is Thursday, 25 May 1989 at 10:00 a.m. at the Commission's offices at 708 Jackson Place, NW., Washington, DC 20006 to discuss various projects affecting the appearance of Washington, DC, including buildings, memorials, parks, etc.; also matters of design referred by other agencies of the government. Handicapped persons should call the offices (566-1066) for details concerning access to meetings.

Inquiries regarding the agenda and requests to submit written or oral statements should be addressed to Mr. Charles H. Atherton, Secretary, Commission of Fine Arts, at the above address or call the above number.

Dated in Washington, DC, May 15, 1989.

Charles H. Atherton,
Secretary.
[FR Doc. 89-12208 Filed 5-19-89; 8:45 am]
BILLING CODE 633-01-M

COMMITTEE FOR PURCHASE FROM THE BLIND AND OTHER SEVERELY HANDICAPPED

Agency Information Collection Activities Under OMB Control

AGENCY: Committee for Purchase from the Blind and Other Severely Handicapped.

ACTION: Notice of extension of authorization for the collection of information.

SUMMARY: The Committee for Purchase from the Blind and other Severely Handicapped requested OMB to extend the authorization for the collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. 35).

EFFECTIVE DATE: June 19, 1989.

ADDRESS: Requests for information, including copies of the request and supporting documentation, should be directed to: Beverly L. Milkman, Committee for Purchase from the Blind and Other Severely Handicapped, 1755 Jefferson Davis Highway, Crystal Square 5, Suite 1107, Arlington, VA 22202-3509, (703) 557-1145.

SUPPLEMENTARY INFORMATION: On April 30 and May 9, 1989, OMB approved the following Committee forms for use through May 31, 1992:

Initial Certification—Blind—Form 401
Initial Certification—Severely Handicapped—Form 402
Initial Certification—Blind—Form 403
Initial Certification—Severely Handicapped—Form 404

On April 25, 1989, OMB approved the extension of the authorization for the Committee to collect information on the above forms through April 30, 1992. The information included on the forms is required to ensure that new workshops entering the Committee's program meet the requirements of Pub. L. 92-28, June 23, 1971 (44 U.S.C. 46-48c) and that participating workshops continue to meet the requirements of the Act.

Minor format changes were made to the forms to allow a more precise determination as to the location of where records are maintained and where direct labor is performed. Other than those minor changes, the forms are identical to the previously approved forms and the information reported is not changed.

Beverly L. Milkman,
Executive Director.
[FR Doc. 89-12105 Filed 5-19-89; 8:45 am]
BILLING CODE 6820-33-M

Procurement List 1989; Additions

AGENCY: Committee for Purchase from the Blind and Other Severely Handicapped.

ACTION: Additions to procurement list.

SUMMARY: This action adds to Procurement List 1989 commodities to be produced by workshops for the blind or other severely handicapped.

EFFECTIVE DATE: June 19, 1989.

ADDRESS: Committee for Purchase from the Blind and Other Severely Handicapped, Crystal Square 5, Suite 1107, 1755 Jefferson Davis Highway, Arlington, Virginia 22202-3509.

FOR FURTHER INFORMATION CONTACT: Beverly Milkman (703) 557-1145

SUPPLEMENTARY INFORMATION: On March 17, and 24, 1989, the Committee for Purchase from the Blind and Other Severely Handicapped published notices (54 FR 11263 and 12262) of proposed additions to Procurement List 1989, which was published on November 15, 1988 (53 FR 46018). No comments were received concerning the proposed additions to the Procurement List. After consideration of the material presented to it concerning capability of qualified workshops to produce the commodities at a fair market price and impact of the additions on the current or most recent contractors, the Committee has determined that the commodities listed below are suitable for procurement by the Federal Government under 41 U.S.C. 46-48c and 41 CFR 51-2.6.

I certify that the following actions will not have a significant impact on a substantial number of small entities. The major factors considered for this certification were:

- The actions will not result in any additional reporting, recordkeeping or other compliance requirements.
- The actions will not have a serious economic impact on any contractors for the commodities listed.
- The actions will result in authorizing small entities to produce the commodities and provide the service procured by the Government.

Accordingly, the following commodities are hereby added to Procurement List 1989:

Commodities

Drape, Surgical
6530-01-032-4089

Military Resale Item No. and Name

No. 020—Mouse Pad, Computer
No. 559—Scrubber, Bathroom
No. 750—Desk, Lap
No. 834—Spoon, Basting, Plastic
No. 835—Spoon, Slotted, Plastic
No. 836—Fork, Plastic
No. 837—Turner, Small, Plastic
No. 838—Turner, Large, Plastic
No. 839—Server, Spaghetti, Plastic
No. 840—Scoop, Ice Cream, Plastic
No. 845—Bag Clip, Plastic

Beverly L. Milkman,

Executive Director.

[FR Doc. 89-12104 Filed 5-19-89; 8:45 am]

BILLING CODE 6820-33-M

COMMODITY FUTURES TRADING COMMISSION

Membership of the Commission's Performance Review Board

AGENCY: Commodity Futures Trading Commission.

ACTION: Membership Change of Performance Review Board.

SUMMARY: In accordance with the Office of Personnel Management guidance under the Civil Service Reform Act, notice is hereby given that the following employees will serve as members of the Commission's Performance Review Board.

Chairperson: Molly G. Bayley, Executive Director, Members: Andrea Corcoran, Director, Division of Trading and Markets; Dennis Klejna, Director, Division of Enforcement; Joanne Medero, General Counsel.

DATE: This action was effective May 16, 1989.

ADDRESS: Commodity Futures Trading Commission, Office of Personnel, Room 202, 2033 K Street NW., Washington, DC 20581.

FOR FURTHER INFORMATION CONTACT: Stacy L. Dean, Director, Office of Personnel, Commodity Futures Trading Commission, Room 202, 2033 K Street NW., Washington, DC 20581, (202) 254-3275.

SUPPLEMENTARY INFORMATION: This action which changes the membership of the Board supersedes the previously published Federal Register Notice in Vol. 52, No. 79, page 13745, Friday, April 24, 1987.

Issued in Washington, DC, on May 16, 1989.

Jean A. Webb,

Secretary to the Commission.

[FR Doc. 89-12210 Filed 5-19-89; 8:45 am]

BILLING CODE 6351-01-M

DEPARTMENT OF DEFENSE

Office of the Secretary

Defense Advisory Panel on Government-Industry Relations; Panel Meeting

Pursuant to Pub. L. 92-463, notice is hereby given of the meeting schedule for the Defense Advisory Panel on Government-Industry Relations (DAPGIR) for the remainder of its chartered term. Meetings will be held as follows: July 11, August 9, and September 12-13, 1989. All meetings will run from 8:00 a.m. to 4:00 p.m. The July and August meetings will be held at the U.S. Chamber of Commerce, 1615 H

Street, NW., Washington, DC. The September meetings will be held at Headquarters, Defense Logistics Agency, Building 3 (Command Conference Room), Cameron Station, Alexandria, Virginia. Agenda are as follows: July—Final briefings, review of draft subpanel reports and panel deliberations; August—resolution of major issues, review of draft findings, conclusions and recommendations and preparation of final report; September—review and approval of final report.

The DAPGIR was established pursuant to section 808, Pub. L. 100-456 to study and make recommendations to the Secretary of Defense on ways to enhance cooperation between the Department of Defense and industry regarding matters of mutual interest, including: (1) Procedures governing the debarment and suspension of contractors from doing business with the Department of Defense; (2) the role of self-governing oversight programs established by defense contractors; and (3) expanded use of alternative disputes resolution procedures. The Panel will also study and make recommendations on the desirability of establishing a permanent panel.

Persons desiring to attend any of the Panel meetings should contact Ms. Regina Bacon, Defense Advisory Panel on Government-Industry Relations, ATTN: DLA-L, Cameron Station, VA 22304, telephone (202) 274-7146, no later than two work days prior to the scheduled meeting date.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

May 16, 1989.

[FR Doc. 89-12126 Filed 5-19-89; 8:45 am]

BILLING CODE 3810-01-M

Defense Advisory Panel on Government-Industry Relations; Panel Meeting

Pursuant to Pub. L. 92-463, notice is hereby given that a meeting of the Defense Advisory Panel on Government-Industry Relations (DAPGIR) is scheduled to be held from 1:00 p.m. to 5:00 p.m. on June 5, 1989 and from 8:00 a.m. to 4:00 p.m. on June 6, 1989. The meeting will be held at the U.S. Chamber of Commerce, 1615 H Street, NW., Washington, DC. This is the third meeting of the DAPGIR. The agenda for June 5 includes several briefings on the subject of voluntary disclosure and industry self-governance. June 6 will focus on individual subpanel deliberations and progress reports as well as panel deliberations.

The DAPGIR was established pursuant to Section 808, Pub. L. 100-456 to study and make recommendations to the Secretary of Defense on ways to enhance cooperation between the Department of Defense and industry regarding matters of mutual interest, including: (1) Procedures governing the debarment and suspension of contractors from doing business with the Department of Defense; (2) the role of self-governing oversight programs established by defense contractors; and (3) expanded use of alternative dispute resolution procedures. The Panel will also study and make recommendations on the desirability of establishing a permanent panel.

Persons desiring to attend the Panel meeting should contact Ms. Regina Bacon, Defense Advisory Panel on Government-Industry Relations, ATTN: DLA-L, Cameron Station, VA 22304, telephone (202) 274-7146, no later than June 2, 1989.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

May 16, 1989.

[FR Doc. 89-12126 Filed 5-19-89; 8:45 am]

BILLING CODE 3810-01-M

Defense Intelligence Agency Advisory Board; Closed Meeting

AGENCY: Defense Intelligence Agency Advisory Board, DOD.

ACTION: Notice of Closed Meeting.

SUMMARY: Pursuant to the provisions of Subsection (d) of section 10 of Pub. L. 92-463, as amended by section 5 of Pub. L. 94-409, notice is hereby given that a closed meeting of a panel of the DIA Advisory Board has been scheduled as follows:

DATE: Tuesday, 27 June 1989 (8:30 a.m. to 3:30 p.m.)

ADDRESS: Clarendon, Virginia.

FOR FURTHER INFORMATION CONTACT:

Lieutenant Colonel John E. Hatlelid, USAF, Executive Secretary, DIA Advisory Board, Washington, DC 20340-1328 (202/373-4930).

SUPPLEMENTARY INFORMATION: The entire meeting is devoted to the discussion of classified information as defined in section 552b(c)(1), Title 5 of the U.S. Code and therefore will be closed to the public. Subject matter will be used in a special study on HUMINT/

Scientific and Technical Intelligence Interface.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

May 16, 1989.

[FR Doc. 89-12128 Filed 5-19-89; 8:45 am]

BILLING CODE 3810-01-M

Department of the Army

Science Board Closed Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), announcement is made of the following Committee Meeting:

Name of the Committee: Army Science Board (ASB).

Date of the Meeting: 15-16 June 1989.

Time of Meeting: 0800-1700 hours.

Place: Adelphi, Maryland.

Agenda: The Army Science Board's Effectiveness Review of the Harry Diamond Laboratories will visit the Harry Diamond Laboratory at Adelphi, Maryland. The purpose of the visit is to gather data for the conduct of the review. HDL will brief its response to panel questions. The Tech Base Master Plan will be briefed. Discussions will be held with HDL customers. This meeting will be closed to the public in accordance with section 552b(c) of Title 5, U.S.C., specifically subparagraph (1) thereof, and Title 5, U.S.C., Appendix 2, subsection 10(d). The classified and unclassified matters and proprietary information to be discussed are so inextricably intertwined so as to preclude opening any portion of the meeting. Contact the Army Science Board Administrative Officer, Sally Warner, for further information at 202-695-3039 or 695-7046.

Sally A. Warner,

Administrative Officer, Army Science Board.

[FR Doc. 89-12173 Filed 5-19-89; 8:45 am]

BILLING CODE 3710-08-M

Science Board; Closed Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), announcement is made of the following Committee Meeting:

Name of the Committee: Army Science Board (ASB).

Dates of Meeting: 20-21 June 1989.

Time of Meeting: 0900-1600 hours each day.

Place: Fort Leavenworth, Kansas.

Agenda: The Army Science Board Ad Hoc Subgroup on Space Systems will meet for classified briefings and discussions, reviewing matters that are an integral part of or related to the issues of the study effort. The subgroup is tasked with a comprehensive review of space concepts, technology, and related issues. This meeting will be closed to the public in accordance with section 552b(c) of Title 5, U.S.C., specifically subparagraph (1) thereof, and Title 5, U.S.C., Appendix 2,

subsection 10(d). Contact the Army Science Board Administrative Officer, Sally Warner, for further information at 202-695-3039 or 695-7046.

Sally A. Warner,

Administrative Officer, Army Science Board.

[FR Doc. 89-12174 Filed 5-19-89; 8:45 am]

BILLING CODE 3710-08-M

Military Traffic Management Command; Invitation for Commercial Boat Haulers et al. To Perform Certain Transportation

AGENCY: Military Traffic Management Command (MTMC).

ACTION: Invitation for commercial boat haulers, other common carriers, and freight forwarders to perform transportation of Department of Defense (DOD) and United States Coast Guard (USCG) uniformed servicemembers' boats.

SUMMARY: A recent action by the Per Diem Travel and Transportation Allowance Committee allows uniformed servicemembers to ship their personal boats as part of their household goods entitlement. MTMC is inviting interested commercial boat haulers and other common carriers and freight forwarders to participate in the transportation of these boats, which may or may not be on their own trailers and are comprised of a large variety of configurations.

Interested carriers will be required to submit copies of certificates or permits (interstate, intrastate, or international operating rights), financial statements for the past two taxable years, insurance certificates, and understand that at a later date, will be required to sign an approved tender of service that is currently in the process of being developed. These documents will be reviewed by the Military Traffic Management Command, and only carriers meeting the requirements will be approved to participate in this program.

Each shipment will be offered to carriers on a one-time-only bid basis.

This invitation applies only in connection with the one-time-only movements, by personal property government bill of lading, of boats that are related to permanent change of station movements of uniformed DOD and USCG servicemembers.

Carriers interested in Military Traffic Management Command's boat transportation program should contact: Ms. Rosemarie Guzzardo (for domestic and international approval), 703-756-1190, Ms. Janet Phillips and/or Ms.

Diane Coleman (for domestic boat moves), 703-756-2577/8, Mr. Mel Williams (for international boat moves), 703-756-2397, Headquarters, Military Traffic Management Command, ATTN: MT-PPC (Room 408), 5611 Columbia Pike, Falls Church, Virginia 22041-5050.
Kenneth L. Denton,

Department of the Army, Alternate Liaison Officer with the Federal Register.

[FR Doc. 89-12170 Filed 5-19-89; 8:45 am]

BILLING CODE 3710-08-M

Corps of Engineers, Department of the Army

Intent To Withdraw Notice of Intent To Prepare a Draft Environmental Impact Statement (DEIS) for Construction of Community Pier and Subsequent Development by Mr. Ben Benson on Cedar Island, in Accomack County, VA

May 15, 1989.

AGENCY: U.S. Army Corps of Engineers, DOD.

ACTION: Notice of Intent to Withdraw Notice of Intent.

SUMMARY: On November 5, 1986, the Norfolk District U.S. Army Corps of Engineers published a Notice of Intent to Prepare a Draft Environmental Impact Statement (DEIS). This Notice requested public scoping comments regarding the issues to be addressed in the DEIS concerning the direct and indirect effects of constructing a community pier on Cedar Island, a barrier island located on the Eastern Shore of Virginia.

FOR FURTHER INFORMATION CONTACT: Questions about the subject action can be answered by: Ms. Linn Maxwell, U.S. Army Corps of Engineers, Norfolk District, 803 Front Street, Norfolk, Virginia 23510, (804) 441-7218.

SUPPLEMENTARY INFORMATION: On February 3, 1988, the final Corps of Engineers regulations regarding the implementation of the National Environmental Policy Act (NEPA) were published in Volume 53, Number 22 of the *Federal Register*. According to these regulations, the Corps of Engineers shall consider the following factors in the scope of analysis for a NEPA document (i.e. EIS):

a. Identify those portions of the entire project over which the District Engineer will have sufficient control and responsibility to warrant Federal review;

b. Determine whether or not the regulated activity will comprise merely a link to a larger project, will induce development, or will result in development that would not otherwise occur;

c. Determine the extent to which the entire project will be within the Corps of Engineers' regulatory jurisdiction; and

d. Determine the extent of cumulative Federal control and responsibility.

Based on the above, and the guidance received from the Office of Chief Engineer, the Norfolk District Engineer has determined that the preparation of a DEIS for this project is not warranted.

Billy W. Frost,

Lieutenant Colonel, Corps of Engineers, Acting District Engineer.

[FR Doc. 89-12144 Filed 5-19-89; 8:45 am]

BILLING CODE 3710-EN-M

DEPARTMENT OF EDUCATION

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

ACTION: Notice of Proposed Information Collection Requests.

SUMMARY: The Director, Office of Information Resources Management, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1980.

DATE: Interested persons are invited to submit comments on or before June 21, 1989.

ADDRESSES: Written comments should be addressed to the Office of Information and Regulatory Affairs, Attention: Jim Houser, Desk Officer, Department of Education, Office of Management and Budget, 726 Jackson Place, NW., Room 3208, New Executive Office Building, Washington, DC 20503. Requests for copies of the proposed information collection requests should be addressed to Margaret B. Webster, Department of Education, 400 Maryland Avenue SW., Room 5624, Regional Office Building 3, Washington, DC 20202.

FOR FURTHER INFORMATION CONTACT: Margaret B. Webster (202) 732-3915.

SUPPLEMENTARY INFORMATION: Section 3517 of the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations.

The Director, Office of Information Resources Management, publishes this notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following:

(1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Frequency of collection; (4) The affected public; (5) Reporting burden; and/or (6) Recordkeeping burden; and (7) Abstract. OMB invites public comment at the address specified above. Copies of the requests are available from Margaret Webster at the address specified above.

Dated: May 16, 1989.

Carlos U. Rice,

Director, for Office of Information, Resources Management.

Office of Educational Research and Improvement

Type of Review: New Collection

Title: Final Performance Report for the College Library Technology and Cooperation Grants Program, HEA Title II-D

Frequency: Annually

Affected Public: Non-profit institutions

Reporting Burden:

Responses: 46

Burden Hours: 46

Recordkeeping Burden:

Recordkeepers: 1

Burden Hours: 1

Abstract: This form is needed for institutions of higher education and non-profit organization grantees to submit their final performance reports to the Department to provide data and information on their projects and to enable the Department to close-out the grant awards.

Office of Postsecondary Education

Type of Review: Revision

Title: Application for Federal Student Aid

Frequency: Annually

Affected Public: Individuals or households

Reporting Burden:

Responses: 6,868,330

Burden Hours: .95

Recordkeeping Burden:

Recordkeepers: 0

Burden Hours: 0

Abstract: This form will collect information from students who are applying for Federal Student Aid. The Department will determine eligibility for student aid under the

Department's student financial assistance programs.

[FR Doc. 89-12134 Filed 5-19-89; 8:45 am]

BILLING CODE 4000-01-M

DEPARTMENT OF ENERGY

[Docket No. PP-89]

Notice of Intent To Prepare an Environmental Impact Statement and To Conduct Public Scoping Meetings; Bangor Hydro-Electric Co.

AGENCY: Department of Energy.

ACTION: Notice of intent (NOI) to prepare an environmental impact statement (EIS).

SUMMARY: Pursuant to the National Environmental Policy Act of 1969 (NEPA) and the regulations of the Council on Environmental Quality at 40 CFR 1501.7, the Department of Energy (DOE) announces its intention to prepare an EIS to assess the environmental effects of the construction and operation of an electric transmission line crossing the U.S. international border, and to conduct public scoping meetings. This EIS will be prepared to assess the environmental impacts of a proposed DOE action: to grant (with terms and conditions) or to deny a Presidential permit authorizing Bangor Hydro-Electric Company (Bangor Hydro) to construct, connect, operate and maintain at the international border between the United States and Canada new facilities for the transmission of electric energy.

Issuance of the Presidential permit by the DOE is one of the necessary steps leading to the construction of an electric transmission line which crosses the U.S. international border. Issuance of the permit indicates that there is no Federal objection to the project, but does not mandate that the project be completed.

Invitation to Comment: To ensure that the full range of issues related to this proposal are addressed, comments on the proposed scope and content of the EIS are invited from all interested parties. Written comments or suggestions to assist the DOE in identifying significant environmental issues and the appropriate scope of the EIS should be postmarked by July 21, 1989. Comments received after that date will be considered to the extent practicable. Agencies, organizations, and the general public are also invited to present oral comments or suggestions pertinent to preparation of this EIS at the public scoping meetings scheduled as indicated below. Written and oral comments will be given equal weight in

the scoping process. Comments and suggestions received during the scoping period will be considered in preparing the draft EIS. The draft EIS is expected to be completed in 1989, at which time its availability will be announced in the Federal Register, and public comments will again be solicited. Comments on the draft EIS will be considered in preparing the final EIS.

ADDRESSES: Written comments or suggestions on the scope of the EIS, requests to speak at the scoping meetings, or questions concerning the project should be directed to: Anthony J. Como, Office of Fuels Programs (FE-52), Office of Fossil Energy, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-5935.

FOR FURTHER INFORMATION CONTACT: For general information on the EIS process, please contact: Carol M. Borgstrom, Director, Office of NEPA Project Assistance (EH-25), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-4600.

DATES: Written comments and suggestions on the proposed scope of the EIS should be postmarked by July 21, 1989 to assure consideration in the preparation of the EIS. Comments received after that date will be considered to the extent practicable.

Dates of Public Scoping Meetings: Tuesday, June 13, 1989, at 7:00 p.m. in the Brewer Middle School, 5 Somerset Street, Brewer, Maine; Wednesday, June 14, 1989, at 11:00 a.m. in the Assembly Room, Administration Building, Washington County Vocational Technical Institute on River Road in Calais, Maine; Wednesday, June 14, 1989, at 7:00 p.m. at the University of Maine Science Building, Room 102 in Machias, Maine; and Thursday, June 15, 1989, at 11:00 a.m. at the Milford Town Hall, Davenport Street, Milford, Maine.

SUPPLEMENTARY INFORMATION: On December 16, 1988, Bangor Hydro applied to the Economic Regulatory Administration¹ pursuant to Executive Order No. 10485, as amended by Executive Order No. 12038, for a Presidential permit to construct, connect, operate and maintain electric transmission facilities at the international border between the U.S. and Canada. This application has been docketed as PP-89. Bangor Hydro's proposed project is scheduled for

service by 1991 and would consist of construction of an 80-mile, 345-kilovolt (kV), overhead electric transmission line which would cross the U.S. Canadian border at Baileyville, Maine, extend approximately 80 miles southwest, and terminate at an existing 345/115-kV substation located at Orrington, Maine. The proposed facilities would connect at the international border with similar facilities to be constructed by the New Brunswick Electric Power Commission.

Approximately 12 miles of the line will follow existing rights-of-way, and much of the remainder will require clearing. Bangor Hydro estimates that roughly 1500 to 2000 acres of land will have to be cleared. The proposed right-of-way would be 270 feet wide except in areas where only a narrower corridor can be obtained.

The DOE has determined that the issuance of a Presidential permit to Bangor Hydro for the proposed facilities would constitute a major federal action significantly affecting the quality of the human environment. Consequently, pursuant to the provisions of the NEPA, an EIS will be prepared to assess the impact of the proposed action on the environment.

Interested agencies, organizations, and members of the general public desiring to submit written comments or suggestions for consideration in connection with the preparation of this EIS are invited to do so and are encouraged to attend the public scoping meetings which will be held as previously identified.

Parties who desire to present oral comments at the scoping meetings should provide advanced notice to the DOE as described below under "COMMENTS AND SCOPING MEETINGS." Upon completion of the draft EIS, its availability will be announced in the Federal Register, at which time further comments will be solicited.

Preliminary Definition of Environmental Issues

The purpose of this notice is to solicit comments and suggestions for consideration in preparation of the EIS. As background for public comment and suggestions, it is useful to list those environmental issues which have been tentatively identified for analysis and assessment in the EIS. This list is not intended to be all inclusive or to imply any predetermination of impacts. Additional issues for analysis may be identified as a result of public comment.

¹ On February 7, 1989, DOE Delegation Order No. 0204-127 was issued transferring the authority to grant Presidential permits from the Administrator, Economic Regulatory Administration, to the Assistant Secretary, Fossil Energy.

A. Environmental Issues Associated with Transmission Line Construction

(1) The loss or modification of upland plant communities due to the permanent removal of all tall-growing vegetation from proposed rights-of-way, and of all vegetation from tower footings, access roads substation sites;

(2) Minor relocations and alterations to other existing facilities along proposed rights-of-way;

(3) Temporary disruption of wildlife communities, agricultural production and other land uses along the line route during actual construction;

(4) Potential long-term effects on wildlife communities from loss and modification of habitat;

(5) Temporary interference with aquatic life during construction at stream and river crossings;

(6) Potential long-term effects to aquatic resources from erosion and sedimentation and clearing of riparian vegetation;

(7) Temporary socioeconomic perturbations due to the influx of construction workers into sparsely populated areas;

(8) Temporary noise and air pollution resulting from operation of construction equipment and from burning of slash from clearing of rights-of-way;

(9) Disruption and displacement of soils during activities associated with land clearing; and

(10) Potential contamination of groundwater.

B. Environmental Issues Associated with Transmission Line Operation and Maintenance

(1) Long-term withdrawal of traditional land use (e.g., forest, agriculture, residential) within rights-of-way and land required for other project facilities;

(2) Periodic interference with plant and wildlife communities along rights-of-way due to required maintenance activities, particularly vegetation control;

(3) Generation of acoustic noise and electromagnetic interference with radio and television reception along rights-of-way;

(5) Possible health effects from periodic and/or prolonged exposure to electric and magnetic fields produced by alternating current transmission;

(6) Possible long-term effects on public health and aquatic and terrestrial organisms due to the use of herbicides for vegetation control along rights-of-way;

(7) Indirect ecological and socioeconomic effects resulting from easier unauthorized human access to

some areas via access roads and rights-of-way, such as increased hunting or use by motorcycles or snowmobiles; and

(8) Long-term visual impacts resulting from the presence of support towers, conductors, and other project facilities.

C. Other Specific Environmental Issues

(1) The possibility of affecting threatened or endangered species or critical habitats for such species;

(2) Identification and review of alternatives to construction within a 100-year floodplain or identified wetlands and identification and review of mitigating measures to be taken if it is found that there are no practicable alternatives to construction in a floodplain or wetland;

(3) Possible direct and adverse effects on the values for which a wild, scenic or recreational river was established;

(4) Environmental factors relevant to any proposed construction in or over navigable rivers, or to any proposed actions resulting in the discharge of dredge or fill materials into any waters of the U.S.; and

(5) Actions having an impact on the continued use and viability of prime and unique farmlands.

Preliminary Definition of Alternatives

One of the major purposes of an EIS is to define the reasonable alternatives to the proposed action and the environmental impacts to be expected from each reasonable alternative. As background for public comments and suggestions concerning reasonable alternatives to be considered, the broad classes of alternatives which have been tentatively identified are described briefly below.

"Alternatives to the Transmission Line Should the Presidential Permit Be Denied" addresses those alternatives to the proposal which attempt to achieve the stated benefits of the proposed line if the DOE denies the permit. "Design Alternatives to the Proposed Action" addresses design, routing and other variations to the line as proposed should the DOE grant the permit with such conditions.

A. Alternatives to the Transmission Line Should the Presidential Permit Be Denied

If the DOE does not grant the permit, alternatives to the proposal available to Bangor Hydro to achieve the stated benefit of the project include:

(1) Installing larger size conductors on existing transmission lines to increase transfer capability and reduce electrical losses;

(2) Development and construction of new, non-conventional types of

generating plants (e.g., solar or wind) closer to load centers to reduce the need for construction of conventional generating plants and to reduce electrical transmission losses;

(3) Load management by energy storage or conservation and/or replacement of some end uses of electricity by other sources of energy, which would reduce seasonal variations in load and total annual electrical energy requirements;

(4) Purchases of power from utilities within the United States; and

(5) Development of cogeneration and distributed small power projects throughout the state.

B. Design Alternatives to the Proposed Transmission Line

The environmental impacts which would result from construction and operation of the proposed project would depend on the choice among a number of alternative possibilities as to where, when and how the project was constructed, as well as the choice of alternative maintenance and repair procedures during operation. The DOE could grant the Presidential permit subject to conditions controlling these variables. Such conditions would be identified in the EIS. Tentatively identified groups of alternatives for consideration in the EIS include: (a) Design, (b) route selection, (c) construction practices and (seasonal) timing, (d) rights-of-way clearing procedures, and (e) rights-of-way maintenance practices.

Comments and Scoping Meetings

The purpose of the scoping meetings is to obtain information from interested parties on the issues which should be addressed when preparing the EIS. These meetings will be conducted informally; however, a transcript of the meetings will be prepared. Parties who desire to present oral comments at a meeting should provide advanced notice to the DOE by June 6, 1989, if possible. The DOE has designated Ms. Constance L. Buckley, Deputy Director of DOE's Office of Fuels Programs, as presiding officer at these meetings. The presiding officer will establish the order of speakers and provide any additional procedures necessary for the conduct of the meetings.

Speakers will be allotted approximately 10 minutes for their oral statement. Should any speaker desire to provide for the record further information which cannot be presented within the designated time, such additional information may be submitted in writing by July 21, 1989. Written

comments will be considered and given equal weight with oral comments. Meetings will commence at the times specified above and will continue until those present who wish to speak have had an opportunity to do so.

A transcript of the scoping meetings will be retained by the DOE and, upon request, made available for inspection and copying at the Freedom of Information Library, Room 1E-090, Forrestal Bldg., 1000 Independence Avenue, SW., Washington, DC 20585, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday.

Draft EIS Schedule and Availability

The draft EIS is scheduled for completion by December 1989, at which time its availability will be announced in the *Federal Register* and public comments again will be solicited.

Those individuals who do not wish to submit comments or suggestions at this time but who would like to receive a copy of the draft EIS for review and comment when it is issued should notify Mr. Anthony J. Como at the address given in the prior section.

One of the requirements placed on the applicant for a Presidential permit is the submission of an Environmental Report. This report is scheduled for completion by July 1989. This and other documents to be used in the preparation of the draft EIS will be made available for public inspection at several public libraries or reading rooms in Maine. A notice of these locations will be provided in the *Federal Register* at a later date.

Issued in Washington, DC on May 16, 1989.

Peter N. Brush,

Acting Assistant Secretary, Environment, Safety and Health.

[FR Doc. 89-12214 Filed 5-9-89; 8:45 am]

BILLING CODE 6450-01-M

Morgantown Energy Technology Center Financial Assistance Award to Stanford University; Grant

AGENCY: U.S. Department of Energy (DOE), Morgantown Energy Technology Center.

ACTION: Notice of acceptance of a non-competitive financial assistance application for grant award.

SUMMARY: The DOE, Morgantown Energy Technology Center, in accordance with 10 CFR 600.7(b), gives notice of its plans to award a three year grant to the Department of Petroleum Engineering, Stanford University, Stanford, California in the amount of \$735,889.

The DOE has determined that restriction to Stanford University is

appropriate based upon the following information:

This project is to support the continuation of the research conducted under a previous DOE Contract No. DE-AC21-85MC22042 entitled "Reservoir Characterization for CO₂ Flooding." The objectives of the proposed research are to determine the mechanisms of viscous instabilities, gravity override, reservoir heterogeneity, and phase behavior of reservoir and injected fluids and processes to field scale, the final step before verification by field pilot tests or flooding.

Successful completion of these objectives will provide more accurate predictions of the CO₂ miscible process and thus reduce the technical and economical risk of process application.

The proposed research has specific relevance to the DOE Fossil Energy mission to develop technology for providing adequate energy supplies at a reasonable cost. Successful completion of this research will provide more accurate predictions for successful CO₂ process application which has direct application in the area of enhanced oil recovery.

In view of the previous research completed in this area to date by Stanford University and in an effort to bring the process to field scale level utilizing the knowledge and experience already gained through their involvement in the previous effort, it has been determined that it is appropriate to award this grant to Stanford University on a non-competitive basis.

FOR FURTHER INFORMATION CONTACT: James H. Urbati, I-07, U.S. Department of Energy, Morgantown Energy Technology Center, P.O. Box 880, Morgantown, West Virginia 26507-0880, Telephone: (304) 291-4089, Procurement Request No. 21-89MC26253.000.

Louie L. Calaway,

Director, Acquisition and Assistance Division, Morgantown Energy Technology Center.

Dated: May 8, 1989.

[FR Doc. 89-12213 Filed 5-19-89; 8:45 am]

BILLING CODE 6450-01-M

Intent to Award Grant to Howard University

AGENCY: U.S. Department of Energy.

ACTION: Notice of intent to make a noncompetitive financial assistance award.

SUMMARY: The Department of Energy announces that it plans to make a noncompetitive award of \$20,400, under grant number DE-FG01-89MA39320, to Howard University for conducting a

summer program to motivate minority and women high school students to pursue careers in engineering and science. This grant will fund an eight-week program for high school students through the program entitled "DOE Engineering/Science Career Orientation" and will be administered by the District of Columbia Metropolitan Consortium For Minorities In Engineering, Inc. (METCON).

FOR FURTHER INFORMATION CONTACT:

U.S. Department of Energy, Office of Procurement Operations, Attn: Normal Fredericks, MA-452.2, 1000 Independence Ave., SW., Washington, DC 20585. Telephone No. (202) 586-5707.

Jeffrey Rubenstein,

Director, Contract Operations Division "A", Office of Procurement Operations.

[FR Doc. 89-12215 Filed 5-19-89; 8:45 am]

BILLING CODE 6450-01-M

Federal Energy Regulatory Commission

[Project No. 3195-003; California]

Sayles Hydro Associates; Availability of Environmental Assessment

May 17, 1989.

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's (Commission's) regulations, 18 CFR, Part 380 (Order No. 486, 52 FR 47897), the Office of Hydropower Licensing has reviewed the application for major license for the proposed Sayles Flat Project located on the South Fork of the American River in El Dorado county near Twin Bridges, CA, and has prepared an Environmental Assessment (EA) for the proposed project.

Copies of the EA are available for review in the Public Reference Branch, room 1000, of the Commission's offices at 825 North Capitol Street, NE., Washington, DC 20426.

Comments should be filed within 30 days from the date of this notice and should be addressed to Lois D. Cashell, Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426. Please affix Project No. 3195-003 to all comments. For further information, please contact Lee Emery, Environmental Assessment Coordinator, at (202) 376-4454.

Lois D. Cashell,

Secretary.

[FR Doc. 89-12187 Filed 5-19-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket Nos. CP87-57-006 et al.]

**Florida Gas Transmission Co. et al.;
Natural Gas Certificate Filings**

May 16, 1989.

Take notice that the following filings have been made with the Commission:

1. Florida Gas Transmission Company

[Docket No. CP87-57-006]

Take notice that on April 27, 1989, Florida Gas Transmission Company (FGT), P.O. Box 1188, Houston, Texas 77251-1188, filed in Docket No. CP87-57-006, a petition to amend the order issued July 29, 1987, in Docket No. CP87-57-000 authorizing FGT to transport natural gas for Monsanto Chemical Company (Monsanto), so as to extend that service for another year, all as more fully set forth in the petition to amend which is on file with the Commission and open to public inspection.

FGT states that on April 24, 1989, FGT and Monsanto entered into a letter agreement which provides for the continuation of transportation service for another year in accordance with the interruptible transportation agreement dated September 18, 1986, consistent with Commission policy.

FGT states that it is requesting authorization to continue the transportation service for Monsanto in accordance with Rate Schedule X-26 for a one-year period beyond the January 16, 1990 expiration date of the current certificate authorization.

FGT states that the term of the existing transportation agreement on file as FGT's Rate Schedule X-26 is for five years; thus no change to the term thereof is required.

FGT states that no additional points of receipt or delivery are proposed; therefore, FGT is not requesting authorization to construct any new facilities.

FGT indicates that, since the transportation service is fully interruptible and is contingent upon the availability of capacity sufficient to provide the service without detriment or disadvantage to FGT's existing customers, the transportation service proposed herein cannot have an adverse impact on FGT's existing customers.

Comment date: June 6, 1989, in accordance with the first subparagraph of Standard Paragraph F at the end of this notice.

2. Florida Gas Transmission Company

[Docket No. CP87-166-005]

Take notice that on April 27, 1989, Florida Gas Transmission Company (FGT), P.O. Box 1188, Houston, Texas 77251-1188, filed in Docket No. CP87-

166-005, a petition to amend the order issued August 13, 1987, in Docket No. CP87-166-000 authorizing FGT to transport natural gas for Enron Industrial Natural Gas Company (Enron Industrial), a Hinshaw pipeline, so as to extend that service for another year, all as more fully set forth in the petition to amend which is on file with the Commission and open to public inspection.

FGT states that on April 24, 1989, FGT and Enron Industrial entered into a letter agreement which provides for the continuation of transportation service for another year in accordance with the interruptible transportation agreement dated January 12, 1987, consistent with Commission policy.

FGT states that it is requesting authorization to continue the transportation service for Enron Industrial in accordance with Rate Schedule X-27 for a one-year period beyond the January 16, 1990 expiration date of the current certificate authorization.

FGT states that the term of the existing transportation agreement on file as FGT's Rate Schedule X-27 is for five years; thus no change to the term thereof is required.

FGT states that no additional points of receipt or delivery are proposed; therefore, FGT is not requesting authorization to construct any new facilities.

FGT indicates that, since the transportation service is fully interruptible and is contingent upon the availability of capacity sufficient to provide the service without detriment or disadvantage to FGT's existing customers, the transportation service proposed herein cannot have an adverse impact on FGT's existing customers.

Comment date: June 6, 1989, in accordance with the first subparagraph of Standard Paragraph F at the end of this notice.

3. Florida Gas Transmission Company

[Docket No. CP88-424-003]

Take notice that on April 27, 1989, Florida Gas Transmission Company (FGT), P.O. Box 1188, Houston, Texas 77251-1188, filed in Docket No. CP88-424-003, a petition to amend the order issued September 21, 1988, in Docket No. CP88-424-000 authorizing FGT to transport natural gas for Phoenix Pipeline Company (Phoenix), so as to extend that service for another year, all as more fully set forth in the petition to amend which is on file with the Commission and open to public inspection.

FGT states that on April 24, 1989, FGT and Phoenix entered into a letter

agreement which provides for the continuation of transportation service for another year in accordance with the interruptible transportation agreement dated March 29, 1988, consistent with Commission policy.

FGT states that it is requesting authorization to continue the transportation service for Phoenix in accordance with Rate Schedule X-35 for a one-year period beyond the September 20, 1989 expiration date of the current certificate authorization.

FGT states that the term of the existing transportation agreement on file as FGT's Rate Schedule X-35 is for ten years; thus no change to the term thereof is required.

FGT states that no additional points of receipt or delivery are proposed; therefore, FGT is not requesting authorization to construct any new facilities.

FGT indicates that, since the transportation service is fully interruptible and is contingent upon the availability of capacity sufficient to provide the service without detriment or disadvantage to FGT's existing customers, the transportation service proposed herein cannot have an adverse impact on FGT's existing customers.

Comment date: June 6, 1989, in accordance with the first subparagraph of Standard Paragraph F at the end of this notice.

**4. Northern Natural Gas Company,
Division of Enron Corp.**

[Docket No. CP89-1317-000]

Take notice that on May 5, 1989, Northern Natural Gas Company Division of Enron Corp. (Northern), 1400 Smith Street, P.O. Box 1188, Houston, Texas 77251-1188 filed in Docket No. CP89-1317-000 a request pursuant to section 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) for authorization to transport natural gas on behalf of Williams Gas Marketing Company (Williams), under the authorization issued in Docket No. CP86-435-000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

Northern would perform the proposed interruptible transportation service for Williams, a marketer of natural gas, pursuant to an interruptible transportation agreement IT-1 dated April 1, 1989 (transportation agreement number 69835). The term of the transportation agreement is for two years from the date of initial delivery, and month to month thereafter unless terminated upon 30 days prior written

notice to the other party. Northern proposes to transport on a peak day up to 50,000 MMBtu; on an average day up to 37,500 MMBtu; and on an annual basis 18,250,000 MMBtu of natural gas for Williams. It is stated that unless Northern agrees in writing to a lower rate, Williams shall pay Northern each month for transportation service at the maximum rates or charges in effect from time to time under Rate Schedule IT-1, or any effective superseding rate schedule on file with the Commission. Northern proposes to receive the subject gas from various existing receipt points on its system for transportation to various existing delivery points on its system. Northern avers that construction of facilities would not be required to provide the proposed service.

It is explained that the proposed service is currently being performed pursuant to the 120-day self-implementing provision of § 284.223(a)(1) of the Commission's regulations. Northern commenced such self-implementing service on April 27, 1989, as reported in Docket No. ST89-3230-000.

Comment date: June 30, 1989, in accordance with Standard Paragraph G at the end of this notice.

5. Northern Natural Gas Company, Division of Enron Corp.

[Docket No. CP-89-1318-000]

Take notice that on May 5, 1989, Northern Natural Gas Company, Division of Enron Corp. (Northern), 1400 Smith Street, P.O. Box 1188, Houston, Texas 77251-1188, filed in Docket No. CP-89-1318-000 a request pursuant to § 157.205 and § 284.223 of the Commission's Regulations for authorization to transport natural gas on behalf of Union Pacific Resources Company (Union Pacific), a producer of natural gas, under Northern's blanket certificate issued in Docket No. CP86-435-000 pursuant to Section 7 of the Natural Gas Act, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

Northern proposes to transport on an interruptible basis up to 100,000 MMBtu of natural gas on a peak day, 100,000 MMBtu on an average day and 36,500,000 MMBtu on an annual basis for Union Pacific. Northern states that it would perform the transportation service for Union Pacific under Northern's Rate Schedule IT-1 for initial term of fifteen years and continue on a monthly basis thereafter.

It is explained that the service commenced March 30, 1989, under the automatic authorization provisions of

§ 284.223 of the Commission's Regulations, as reported in Docket No. ST89-3191. Northern indicates that no new facilities would be necessary to provide the subject service.

Comment date: June 30, 1989, in accordance with Standard Paragraph G at the end of this notice.

6. Panhandle Eastern Pipe Line Company

[Docket No. CP89-1319-000]

Take notice that on May 5, 1989, Panhandle Eastern Pipe Line Company (Panhandle), P.O. Box 1319, Houston, Texas 77251-1642, filed in Docket No. CP89-1292-000 a request pursuant to § 157.205 of the Commission's Regulations under the Natural Gas Act (18 CFR 157.205) for authorization to transport natural gas for Manville Sales Corporation (Manville), an end user of natural gas, under Panhandle's blanket certificate issued in Docket No. CP86-585-000, pursuant to Section 7 of the Natural Gas Act, all as more fully set forth in the application which is on file with the Commission and open for public inspection.

Pursuant to a transportation agreement dated April 1, 1989, Panhandle requests authority to transport up to 3,000 Dt. per day of natural gas, on a firm basis, on behalf of Manville. Panhandle states that the agreement provides for it to receive the gas from Trunkline Gas Company at an existing point of interconnection located in Douglas County, Illinois and deliver the gas, less fuel used and unaccounted for line loss, to John's-Manville Sales Corporation in Defiance County, Ohio. Manville has informed Panhandle that it expects to have the full 3,000 Dt. transported on an average day and based thereon, estimates that the annual transportation quantity would be 1,095,000 Dt. Panhandle advises that the transportation service commenced on April 1, 1989, as reported in Docket No. ST89-3170, pursuant to § 284.223 of the Commission's Regulations.

Comment date: June 30, 1989, in accordance with Standard Paragraph G at the end of this notice.

7. Northern Natural Gas Company, Division of Enron Corp.

[Docket No. CP89-1325-000]

Take notice that on May 5, 1989, Northern Natural Gas Company, Division of Enron Corp. (Northern), 1400 Smith Street, Houston, Texas 77002, filed in Docket No. CP89-1325-000, an application pursuant to Section 7(c) of the Natural Gas Act for authorization to increase the currently authorized firm sales entitlement of Midwest Gas, a

Division of Iowa Public Service Company (Midwest), a gas utility, all as more fully set forth in the application on file with the Commission and open to public inspection.

Specifically, Northern requests authorization to increase the firm sales entitlements for Midwest under Rate Schedule CD-1 by 2,300 Mcf per day. Northern states that, pursuant to an underlying service agreement dated March 10, 1989, the increased sales service would become effective on November 1, 1989. Northern further states that the additional sales service could be accomplished without constructing new facilities or rearranging presently authorized facilities.

Comment date: June 6, 1989, in accordance with Standard Paragraph F at the end of this notice.

8. Northern Natural Gas Company

[Docket No. CP89-1327-000]

Take notice that on May 5, 1989, Northern Natural Gas Company (Northern), 1400 Smith Street, P.O. Box 1188, Houston, Texas 77251-1188 filed in [Docket No. CP89-1327-000 a request pursuant to §§ 157.205 and 284.223 of the Commission's Regulations under the Natural Gas Act for authorization to transport natural gas on an interruptible basis on behalf of Apache Corporation (Apache), a marketer of natural gas, under its blanket certificate issued in Docket No. CP86-435-000 pursuant to Section 7 of the Natural Gas Act, all as more fully set forth in the request on file with the Commission and open to public inspection.

Northern states that it proposes to transport natural gas on behalf of Apache between numerous points of receipt in Texas, Oklahoma, Kansas, New Mexico, Iowa and Nebraska, and numerous points of delivery in Texas, Iowa, Illinois, Kansas and Oklahoma.

Northern states that the maximum daily, average daily and annual quantities that it would transport on behalf of Apache would be 75,000 MMBtu equivalent of natural gas, 56,250 MMBtu equivalent of natural gas and 27,375,000 MMBtu equivalent of natural gas, respectively.

Northern indicates that in Docket No. ST89-3228, filed with the Commission on April 27, 1989, it reported that transportation service on behalf of Apache had begun under the 120-day automatic authorization provisions of § 284.223(a).

Comment date: June 30, 1989, in accordance with Standard Paragraph G at the end of this notice.

9. Northwest Pipeline Corporation

[Docket No. CP89-1333-000]

Take notice that on May 8, 1989, Northwest Pipeline Corporation (Northwest), 295 Chipeta Way, Salt Lake City, Utah 84108, filed in [Docket No. CP89-1333-000, a request, pursuant to §§ 157.205 and 284.223 of the Commission's Regulations for authorization to provide a transportation service for Meridian Oil Trading Inc. (Meridian Oil), a marketer of natural gas, under Northwest's blanket certificate issued in Docket No. CP86-578-000 pursuant to Section 7(c) of the Natural Gas Act, all as more fully set forth in the request that is on file with the Commission and open to public inspection.

Northwest states that it proposes to transport up to 100,000 MMBtu per day of natural gas for Meridian Oil pursuant to a Transportation Agreement dated June 14, 1988, as amended December 5, 1988, under Rate Schedule TI-1, for a term continuing to May 31, 1989, and month to month thereafter, subject to termination upon 30 business days written notice by either party.

Northwest will transport the subject gas through its system from any transportation receipt point on its system to any transportation delivery point on its system.

Northwest also states that no construction of new facilities will be required to provide this transportation service.

Northwest further states that the maximum daily transportation volume, would be no more than 100,000 MMBtu, while it estimates that average day and annual transportation volumes initially will be approximately 100 MMBtu and 36,500 MMBtu, respectively.

Northwest advises that service under § 84.223(a) commenced March 23, 1989, as reported in Docket No. ST89-3069-000 (filed April 17, 1989).

Comment date: June 30, 1989, in accordance with Standard Paragraph G at the end of this notice.

F. Any person desiring to be heard or make any protest with reference to said filing should on or before the comment date file with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants

parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to jurisdiction conferred upon the Federal Energy Regulatory Commission by Section 7 and 15 of the Natural Gas Act and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission or its designee on this filing if no motion to intervene is filed within the time required herein, if the Commission on its own review of the matter finds that a grant of the certificate is required by the public convenience and necessity. If a motion for leave to intervene is timely filed, or if the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for the applicant to appear or be represented at the hearing.

G. Any person or the Commission's staff may, within 45 days after the issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to § 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefor, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to section 7 of the Natural Gas Act.

Lois D. Cashell,

Secretary.

[FR Doc. 89-12188 Filed 5-19-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. ER89-391-000]

Mid-Continent Area Power Pool; Filing

May 11, 1989.

Take notice that on April 28, 1989, the Mid-Continent Area Power Pool (MAPP) filed on behalf of the investor-owned public utility members of MAPP revisions to several of the pool rate schedules for the purpose of incorporating formula rates. The schedules affected include Schedule B

(Seasonal Participation Power), Schedule C (Emergency and Schedule Outage Energy Service) Schedule E (Economy Energy), Schedule G (Operational Control Energy), Schedule H (Peaking Power), Schedule I (Short Term), Schedule K (System Participation Power), and Schedule M (General Purpose Energy) which is being added.

The revisions have been approved by the members of the pool and MAPP requests an effective date of May 1, 1989.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR §§ 385.211, 385.214). All such motions or protests should be filed on or before May 26, 1989. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 89-12189 Filed 5-19-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. TM89-4-16-000 and RP89-167-000]

National Fuel Gas Supply Corp.; Proposed Changes in FERC Gas Tariff

May 16, 1989.

Take notice that on May 10, 1989, National Fuel Gas Supply Corporation ("National") tendered for filing as part of its FERC Gas Tariff, First Revised Volume No. 1, the following tariff sheets, to be effective on June 1, 1989.

Sixth Revised Sheet No. 71, Page 1 of 2
Fifth Revised Sheet No. 71, Page 2 of 2
Fourth Revised Sheet No. 71-A, Page 1 of 2
Third Revised Sheet No. 71-A, Page 2 of 2
Fourth Revised Sheet No. 71-B, Page 1 of 2
Third Revised Sheet No. 71-B, Page 2 of 2
Third Revised Sheet No. 71-C
Sixth Revised Sheet No. 72, Page 1 of 3
Sixth Revised Sheet No. 72, Page 2 of 3
Sixth Revised Sheet No. 72, Page 3 of 3
Fourth Revised Sheet No. 72-A, Page 1 of 4
Fourth Revised Sheet No. 72-A, Page 2 of 4
Fourth Revised Sheet No. 72-A, Page 3 of 4
Fourth Revised Sheet No. 72-A, Page 4 of 4
Fourth Revised Sheet No. 72-B, Page 1 of 4
Fourth Revised Sheet No. 72-B, Page 2 of 4
Fourth Revised Sheet No. 72-B, Page 3 of 4
Fourth Revised Sheet No. 72-B, Page 4 of 4
Third Revised Sheet No. 72-C

National states that the purpose of this filing is to update the amount of take-or-pay charges approved by the Federal Energy Regulatory Commission to be billed to National by its pipeline-suppliers and to be recovered by National by operation of Section 20 of the General Terms and Conditions to National's FERC Gas Tariff, First Revised Volume No. 1. National further states that its pipeline-suppliers which have received approval to bill take-or-pay charges to National are: Columbia Gas Transmission Corporation, CNG Transmission Corporation, Texas Eastern Transmission Corporation, Transcontinental Gas Pipeline Company, and Tennessee Gas Pipeline Company.

Copies of National's filing were served on National's jurisdictional customers and on the interested State Commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's Rules of Practice and Procedure (18 CFR 385.214 and 385.211). All such motions or protests should be filed on or before May 23, 1989. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,
Secretary.

[FR Doc. 89-12190 Filed 5-19-89; 8:45 am]
BILLING CODE 6717-01-M

[Docket No. C189-389-000]

**Plains Petroleum Operating Co.;
Application for Permanent
Abandonment**

May 16, 1989.

Take notice that on April 26, 1989, Plains Petroleum Operating Company (Plains), P.O. Box 15278, Lakewood, CO 80215 filed an application in Docket No. C189-389-000 requesting permanent abandonment of the sale of certain gas to Northern Natural Gas Company, Division of Enron Corporation (Northern) which is produced from the Masonic Home Nos. 1, 2, and 9, and Campbell No. 1-A wells located in the Hugoton Gas Field, Kearny County,

Kansas, in order to offer the gas to other purchasers. Plains requests that its application be considered on an expedited basis under procedures established by the Commission's Order No. 438, Docket No. RM85-1-000 (18 CFR 2.77).

Plains states expedited relief is sought under Section 2.77 of the Commission's Regulations for the reason that, on a well-by-well basis, Northern's purchases under the April 15, 1940, contract constitute substantially reduced takes without payment. The contract term is for the life of production. The sale between Kansas-Nebraska Natural Gas Company, later K N Energy, Inc. (K N), as seller, and Argus Natural Gas Company, Inc., later Northern, as buyer, was authorized in Docket No. G-8866, *et al.*, on October 4, 1955, 14 F.P.C. 1010 (1955). Plains Petroleum Company, a wholly-owned subsidiary of K N, acquired the rights and obligations under the 1940 contract by assignment executed February 28, 1986, effective October 1, 1984, and was authorized as successor-in-interest to K N by certificate issued January 27, 1987, in Docket No. C186-414-000 to continue the sale to Northern. Plains states that the affiliation with K N ceased in September 1985 when Plains Petroleum Company became an independent corporation. By order issued September 17, 1987, Plains was substituted as certificate holder in Docket No. C186-414-000 and the contract was designated as Plains' FERC Gas Rate Schedule No. 10. Plains states that 82.1361% of the total reserves encompassed by the contract are dedicated to Northern and the remaining reserves are dedicated to K N under a contract dated April 20, 1984. Based on the "peak" amounts purchased within the last five years, Plains states that the maximum annual total production of the four wells was 682,339 Mcf, but, production in 1988 amounted to only 470,597 Mcf. Of this amount, 82.1361% was purchased by Northern at the NGPA section 104 minimum rate (\$348 per Mcf for deliveries during December 1988) and the remaining 17.8639% was sold to K N at \$1.58 per MMBtu according to the terms of an agreement negotiated after Commission Order No. 451 was issued on June 6, 1986. Plains states that as a result of the settlement of litigation with royalty owners, it will make royalty payments of approximately \$.242 per MMBtu on sales made during April 1989, leaving Plains only \$.11 for gas which it sells to Northern for \$.352 for gas produced from three of the four wells. Plains states it may lose its lease if it does not drill infill wells authorized by a 1986 Kansas Corporation Commission order.

According to Plains, each lease carries an implied covenant to protect the lessor against drainage from infill drilling by operators of offsetting acreage. However, Plains states that adequate revenue must be received from gas sales to prevent losses through unrecovered costs of drilling and completing infill wells. In addition to gas currently deliverable, Plains estimates that 1,691 MMcf of reserves could be produced from infill wells.

Since Plains has requested that its application be considered on an expedited basis, all as more fully described in the application which is on file with the Commission and open to public inspection, any person desiring to be heard or to make any protest with reference to said application should on or before 15 days after the date of publication of this notice in the Federal Register, file with Federal Energy Regulatory Commission, Washington, DC 20426, a petition to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceedings. Any person wishing to become a party to the proceedings herein must file a petition to intervene in accordance with the Commission's rules.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Plains to appear or to be represented at the hearing.

Lois D. Cashell,
Secretary.

[FR Doc. 89-12191 Filed 5-19-89; 8:45 am]
BILLING CODE 6717-01-M

[Docket No. RP89-93-002]

Sabine Pipe Line Co.; Filing

May 16, 1989.

Take notice that on May 10, 1989, Sabine Pipe Line Company (Sabine) filed Third Revised Sheet No. 204 and First Revised Tariff Sheet No. 205E to its FERC Gas Tariff, First Revised Volume No. 1, to be effective May 10, 1989.

Sabine states that these tariff sheets were filed as directed by Commission Letter Order dated April 10, 1989. Sabine states that it modified its tariff provision to eliminate the conflict with the one-year expiration date on request for OCS transportation capacity.

Any person desiring to protest said filing should file a protest with the

Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's Rules of Practice and Procedure [18 CFR 385.214, 385.211 (1989)]. All such protests should be filed on or before May 23, 1989. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Persons that are already parties to this proceeding need not file a motion to intervene in this matter. Copies of this filing are or file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 89-12192 Filed 5-19-89; 8:45 am]

BILLING CODE 5717-01-M

ENVIRONMENTAL PROTECTION AGENCY

[OPP-000275; FRL-3574-4]

FIFRA Scientific Advisory Panel; Appointment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: Notice is given of the appointment of a member to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel established pursuant to section 25(d) of FIFRA, as amended (86 Stat. 973 and 89 Stat. 751; 7 U.S.C. 136 et seq.). Public notice of nominees along with a request for public comments appeared in the Federal Register of August 17, 1988.

FOR FURTHER INFORMATION CONTACT:

By mail Robert B. Jaeger, Executive Secretary, FIFRA Scientific Advisory Panel (H7509-C), Office of Pesticide Programs, Office location and telephone number: Rm. 821, Crystal Mall Building No. 2, Arlington, VA 22202, (703-557-4369).

SUPPLEMENTARY INFORMATION: Congress mandated that the Scientific Advisory Panel would consist of seven members, selected from candidates nominated by the National Science Foundation (NSF) and the National Institutes of Health (NIH). Congress also mandated that the terms of appointment would be staggered. Lists of nominees were obtained from NIH and NSF, and a public notice of nominees, including biographical data, appeared in the Federal Register as indicated above. One comment was received in response to this Notice.

I appoint Dr. Peter N. Magee, Director, Fels Research Institute, Temple School of Medicine, to serve as a member of the Scientific Advisory Panel. My decision to appoint Dr. Magee is based upon several factors, including comments received, his expertise in cancer research, the need for a disciplinary mix, and the need for wide geographic representation.

Meetings of the Scientific Advisory Panel are always announced in the Federal Register at least 15 days prior to each meeting.

Dated: May 15, 1989.

John A. Moore,

Acting Deputy Administrator.

[FR Doc. 89-12184 Filed 5-19-89; 8:45 am]

BILLING CODE 6580-50-M

FEDERAL COMMUNICATIONS COMMISSION

Public Information Collection Requirement Submitted to Office of Management and Budget for Review

May 12, 1989.

The Federal Communications Commission has submitted the following information collection requirement to OMB for review and clearance under the Paperwork Reduction Act of 1980 (44 U.S.C. 3507).

Copies of this submission may be purchased from the Commission's copy contractor, International Transcription Service, (202) 857-3800, 2100 M Street NW., Suite 140, Washington, DC 20037. For further information on this submission contact Judy Boley, Federal Communications Commission, (202) 632-7513. Persons wishing to comment on this information collection should contact Eyvette Flynn, Office of Management and Budget, Room 3235 NEOB, Washington, DC 20503, (202) 395-3785.

OMB Number: 3060-0099.

Title: Annual Report Form M.

Form Number: FCC Form M.

Action: Revision.

Respondents: Businesses or other for-profit.

Frequency of Response: Annually.

Estimated Annual Burden: 60

Responses; 90,000 Hours.

Needs and Uses: FCC Form M is the Annual Report of financial and operating information from all subject telephone companies having annual operating revenues in excess of \$100 million. It is needed to provide the Commission with the data required to fulfill its regulatory responsibilities.

Federal Communications Commission.

Donna R. Searcy,

Secretary.

[FR Doc. 89-12106 Filed 5-19-89; 8:45 am]

BILLING CODE 6712-01-M

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA Advisory Board Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act, announcement is made of the following FEMA Advisory Board meeting:

Name: Federal Emergency

Management Agency Advisory Board.

Date of Meeting: June 6, 1989.

Time: 9:30 a.m.-3:30 p.m.

Place: Federal Emergency

Management Agency, National

Emergency Training Center,

Emmitsburg, Maryland.

Purpose: FEMA executives will provide reports on the Agency's budget and personnel. The status of a review of Civil Defense Programs will be provided and discussed. Program development concepts for the protection of national infrastructure assets will be discussed. Sessions on the future work agendas for the Board and the Board Panels will be conducted. Discussions will include classified information. The Director has determined that the Board meeting should be closed to the public in accordance with Section 10(d) of the Federal Advisory Committee Act, Pub. L. No. 92-463, as amended (5 U.S.C. App. II (1982)), because discussions will involve information that is specifically authorized to be kept "Secret" in the interest of national defense and is properly classified pursuant to the Executive order.

William Tidball,

Chief of Staff.

[FR Doc. 89-12205 Filed 5-19-89; 8:45 am]

BILLING CODE 6718-21-M

FEDERAL TRADE COMMISSION

Granting of Request for Early Termination of the Waiting Period Under the Premier Notification Rules

Section 7A of the Clayton Act, 15 U.S.C. 18a, as added by Title II of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, requires persons contemplating certain mergers or acquisitions to give the Federal Trade Commission and the Assistant Attorney General advance notice and to wait designated periods before

consummation of such plans. Section 7A(b)(2) of the Act permits the agencies, in individual cases, to terminate this waiting period prior to its expiration and requires that notice of this action be published in the Federal Register.

The following transactions were granted early termination of the waiting period provided by law and the premerger notification rules. The grants were made by the Federal Trade Commission and the Assistant Attorney

general for the Antitrust Division of the Department of Justice. Neither agency intends to take any action with respect to these proposed acquisitions during the applicable waiting period:

TRANSACTIONS GRANTED EARLY TERMINATION BETWEEN: 050189 AND 051289

Name of acquiring person, name of acquired person, name of acquired entity	PMN No.	Date terminated
Tele-Communications, Inc., R.E. Turner, III, Turner Broadcasting System, Inc.	89-1435	05/01/89
Acadia Partners, L.P., The Vons Companies, Inc., The Vons Companies, Inc.	89-1531	05/01/89
Masco Corporation, Saratoga Partners II, L.P., FM Holdings Inc.	89-1533	05/01/89
Industriellforvaltnings AB Kinnevik, Stith Equipment Company, Stith Equipment Company	89-1561	05/01/89
Novell, Inc., Excelan, Inc., Excelan, Inc.	89-1460	05/02/89
Unilever N.V., Borden, Inc., Borden, Inc.	89-1474	05/02/89
Ashland Oil, Inc., Philp Co. Trust, The Southland Corporation	89-1530	05/02/89
Ronald O. Perelman, New World Entertainment, Ltd., New World Entertainment, Ltd.	89-1585	05/02/89
Dominion Textile Inc., Senter Group Inc., C.S. Brooks Corporation	89-1554	05/03/89
Rauma-Repol Oy, Timberjack Corporation, Timberjack Corporation	89-1565	05/03/89
Rauma-Repol Oy, Timberjack Corporation, Timberjack Corporation	89-1566	05/03/89
Boston Ventures Limited Partnership III, Generoso Pope, Jr. Revocable Trust c/o Citibank, N.A., GP Group, Inc.	89-1569	05/03/89
Peter J. Callahan, c/o Macfadden Holdings, Inc., Generoso Pope, Jr. Revocable Trust, c/o Citibank N.A., GP Group, Inc.	89-1570	05/03/89
NACCO Industries, Inc., ESCO Corporation, ESCO Corporation	89-1525	05/04/89
Laidlaw Transportation Limited, Mr. Max Gibson and Mr. Gregory Gibson, Victory Services Corporation and Jamax Corporation	89-1485	05/05/89
Norwest Corporation, First Federal Savings and Loan Association of Lincoln, First Federal Savings and Loan Association of Lincoln	89-1515	05/05/89
Eli S. Jacobs, Worlds of Wonder, Inc., Worlds of Wonder, Inc.	89-1545	05/05/89
Booker PLC, P. Leiner Nutritional Products Corporation, P. Leiner Nutritional Products Corporation	89-1575	05/05/89
McCown De Leeuw & Co., Boise Cascade Corporation, Boise Cascade's Specialty Paper Board Division	89-1581	05/05/89
Racal Electronics plc, Odyssey Partners, Interlan, Inc.	89-1594	05/05/89
Sammi Steel Co., Ltd., The RTZ Corporation PLC, Al Tech Specialty Steel Corp.	89-1616	05/05/89
Banc One Corporation, National Industrial Bancorp, Inc., National Industrial Bank of Connecticut	89-1622	05/05/89
Victoria Co., Ltd., David A. Rosow, Moore & Munger, Inc.	89-1623	05/05/89
Kimio Haneda, Caroline Hunt Trust Estate, Rosewood Property Company	89-1628	05/05/89
Hardy Oil and Gas Public Limited Company, Trafalgar House Public Limited Company, Trafalgar House Oil and Gas Inc.	89-1633	05/05/89
Pitcairn Group L.P., Safeguard Scientifics Inc., Safeguard Powertech Systems	89-1547	05/08/89
The Atlantic Foundation, Management Science America, Inc., Management Science America, Inc.	89-1553	05/08/89
William Dean Singleton, Knight-Ridder, Inc., Twin Coast Newspapers, Inc.	89-1617	05/08/89
Jean Noel Bongrain, Stuart Applebaum, c/o Lloyd's Food Products, Inc., Stuart Lloyd Company and Lloyd's Food Products, Inc.	89-1632	05/08/89
Boral Limited, Lonrho plc, Blacktop Materials Co.	89-1544	05/09/89
Jean-Noel Bongrain, Lloyd Sigel, c/o Lloyd's Food Products, Inc., Stuart Lloyd Company and Lloyd's Food Products, Inc.	89-1630	05/09/89
FS Equity Partners II, L.P., Blackstone Capital Partners L.P., Orchard Supply Hardware	89-1559	05/10/89
FS Equity Partners II, L.P., Wasserstein, Perella Partners, L.P., Orchard Supply Hardware	89-1560	05/10/89
Gordon Investment Corporation, APL Corporation, W. Heath & Company	89-1576	05/10/89
VRG-GROEP N.V., VGC Corp., VGC Corp.	89-1577	05/10/89
Yamashita-Shinnihon Steamship Co., Ltd., Japan Line, Ltd., Japan Line, Ltd.	89-1601	05/10/89
Nippon Mining Company, Limited, Japan Petroleum Exploration Co., Limited, certain assets of Japex (U.S.) Corp.	89-1639	05/10/89
Loews Corporation, Olin Corporation, Hamilton Technology, Inc.	89-1551	05/11/89
Printpack Inc., Banta Corporation, Daniels Packaging Company, Inc.	89-1571	05/11/89
Norwest Corporation, First Financial Corporation, First Financial Bank, F.S.B.	89-1615	05/11/89
Laidlaw Transportation Limited, International Technology Corporation, IT Corp., IT Transportation Corp., McKittrick Mud Co.	89-1648	05/11/89
International Technology Corporation, Laidlaw Transportation Limited, GSX Chemical Services of California, Inc.	89-1649	05/11/89
The Elder-Beerman Stores Corporation, Brown Group, Inc., Mels Stores Division of Etage, Inc.	89-1516	05/12/89
Odakyu Electric Railway Co., Ltd., Richard R. Kelley, Outrigger Hotels Hawaii	89-1600	05/12/89
Cooperants Mutual Life Insurance Society, Aon Corporation, Virginia Life Insurance Company of New York	89-1606	05/12/89
U.E.I. plc, United Video Inc., United Video, Inc.	89-1618	05/12/89
Racal Electronics Plc, Daisy Systems Corporation, HHB Systems, Inc.	89-1643	05/12/89
Romo Corp., Technographics, Inc., McBee Division	89-1655	05/12/89
Anheuser-Busch Companies, Inc., H. Dieter Holterbosch, Port Distributing Corporation and Brewers Leasing Corp.	89-1659	05/12/89
Budget Rent A Car Corporation, Jeffrey Congdon, Crossroads Rentals, Inc.	89-1665	05/12/89
Vereinigte Haftpflicht Versicherung, V.a.G., Halliburton Company, Life Insurance Company of the Southwest	89-1667	05/12/89
Alexander & Baldwin Inc., Capital Solutions Moulton Parkway Plaza, Capital Solutions Moulton Parkway Plaza	89-1668	05/12/89
Warburg, Pincus Capital Company, L.P., Exxon Corporation, Zilog, Inc.	89-1669	05/12/89
PepsiCo, Inc., Farzin Ferdowsi, Fer-Am Tennessee, Inc.	89-1672	05/12/89
PepsiCo, Inc., Homayoun Aminmadani, National Restaurant Corporation	89-1673	05/12/89
Delta Air Lines, Inc., UAL Corporation, certain assets of UAL Corporation	89-1695	05/12/89

FOR FURTHER INFORMATION CONTACT:

Sandra M. Peay, Contact
Representative, Premerger Notification
Office, Bureau of Competition, Room
303, Federal Trade Commission,
Washington, DC 20580, (202) 326-3100.

By direction of the Commission.

Donald S. Clark,

Secretary.

[FR Doc. 89-12159 Filed 5-19-89; 8:45 am]

BILLING CODE 6750-01-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 88N-0335]

**Quality Plus Essar Corp. et al.; Drugs
Containing Sulfamethazine,
Sulfaquinoxaline, Sulfamerazine,
Sulfathiazole, Sulfapyridine, or
Sulfanilamide for Oral, Injectable,
Intramammary, or Intrauterine Use in
Food-Producing Animals; Refusal to
Approve NADA's**

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA), Center for Veterinary Medicine (CVM), is issuing a final order refusing to approve certain new animal drug applications (NADA's) for drugs containing sulfamethazine, sulfaquinoxaline, sulfamerazine, sulfathiazole, sulfapyridine, or sulfanilamide for oral, injectable, intramammary, or intrauterine use in food-producing animals. Each of the NADA's in question (with two exceptions as discussed in detail below) was listed in a notice of opportunity for a hearing, published in the Federal Register of November 15, 1988 (53 FR 46050), on a proposal by CVM to refuse approval of the NADA's. This action is being taken because the sponsors either did not provide any data, information, or analysis to justify a hearing by February 13, 1989, as required by the November 15, 1988, notice or did not respond to the notice of opportunity for a hearing by December 15, 1988, as provided by the November 15, 1988, notice.

DATES: The refusals to approve certain NADA's are effective May 22, 1989, distribution of the products by the sponsors must cease July 21, 1989.

FOR FURTHER INFORMATION CONTACT:

Philip J. Frappaolo, Center for Veterinary Medicine (HFV-240), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4940.

SUPPLEMENTARY INFORMATION:**I. Background Information**

In the Federal Register of November 15, 1988 (53 FR 46050) (corrected December 12, 1988 (53 FR 49968), December 23, 1988 (53 FR 51950), and February 2, 1989 (54 FR 5303)), CVM provided a notice of opportunity for a hearing on its proposal to refuse approval of 142 listed pending NADA's sponsored by 11 firms for products covered by § 510.450 (21 CFR 510.450). Section 510.450 provides for interim marketing of drugs that contain sulfamethazine, sulfaquinoxaline, sulfamerazine, sulfathiazole, sulfapyridine, or sulfanilamide for oral, injectable, intramammary, or intrauterine use in food-producing animals and that are the subject of pending applications. The notice of opportunity for hearing gave sponsors until December 15, 1988, to request a hearing on the proposed refusal. The notice of opportunity for hearing also required the sponsors to submit, by February 13, 1989, the data, information, and analyses relied on to justify a hearing, as specified in 21 CFR 514.200. (Corrections, cited above, to the November 15, 1988, notice required the submission of such data, information, and analyses, by January 17, 1989; however, due to confusion over the due date for such material, CVM notified all persons who had requested a hearing by December 15, 1988, that the data, information, and analyses to justify a hearing had to be submitted by February 13, 1989.)

The notice of opportunity for a hearing provided, in addition, that the failure of a sponsor to submit any data, information, or analysis in support of its hearing request, like the failure of a sponsor to file a timely written appearance and a request for hearing as required by 21 CFR 514.200, would constitute an election by the sponsor not to avail itself of the opportunity for hearing, as a result of which CVM would summarily enter a final order refusing approval of the application.

II. List of Firms Having NADA's Subject to this Notice

1. Quality Plus Essar Corp., P.O. Box 459, Fort Dodge, IA 50501.
2. I.D. Russell Co., Laboratories, P.O. Box 411268, Kansas City, MO 64141.
3. Purina Mills, Inc. 800 Chouteau Ave., St. Louis, MO 63164.

III. Affected NADA's and Grounds for Refusing Approval

All the pending NADA's for the sulfonamide-containing drugs affected by this notice are listed in the tables

below, by the same drug groups and in the same format used in the November 15, 1988, notice of opportunity for a hearing. The tables list each pending NADA, current sponsor, and product name. The grounds on which CVM provided an opportunity for a hearing on the proposed refusal to approve each listed NADA under section 512(d)(1) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 360b(d)(1)) and FDA's regulations were provided in detail in the November 15, 1988, notice of opportunity for a hearing, which is being incorporated in this notice.

Quality Plus Essar Corp., by cover letter dated February 11, 1989, submitted data and information on NADA 100-019 for sulfathiazole sodium N.F., but did not respond to the notice of opportunity for hearing by December 15, 1988, as provided by the November 15, 1988, notice. NADA 100-019 was not listed in that notice because the NADA was withdrawn in 1984 (Refs. 1 and 2). For this reason, and because in any event Quality Plus Essar Corp. did not file a written appearance and request for hearing on CVM's proposal to refuse approval of NADA 100-019, CVM did not review the data and information submitted by cover letter dated February 11, 1989. If NADA 100-019 was not withdrawn in 1984, as the firm presumably contends, CVM is refusing to approve the application on the ground that the sponsor did not file a timely written appearance and request for a hearing. Quality Plus Essar Corp. is the sponsor of NADA 99-976, Sulfapyridine Solution Injectable. The NADA was not listed in the November 15, 1988, notice through an omission but was listed in the correction of February 2, 1989. The firm filed a timely written appearance and request for a hearing but did not submit any data, information, or analysis to justify a hearing on CVM's proposal to refuse approval of the NADA.

Purina Mills, Inc., is the sponsor of NADA 99-940, Sodium Sulfathiazole Sesquihydrate. The NADA was listed in the November 15, 1988, notice, and the firm filed a timely written appearance and request for hearing by letter dated December 12, 1988. However, it did not submit any data, information, or analysis to justify a hearing. Instead, the firm argues in its letter that the product is the subject of a prior approval dating back to 1965. In fact, by cover letter dated January 15, 1975 (Ref. 3), Purina Mills, Inc., submitted an NADA for sodium sulfathiazole sesquihydrate in accordance with 21 CFR 135.102 (now 21 CFR 510.450), as amended on July 22, 1974 (39 FR 26633). CVM assigned NADA 99-940 for the product, and

advised the firm of deficiencies in the application, e.g., the absence of toxicity and tissue residue data, that made it "clearly not approvable" (Ref. 4). The deficiencies were not cured, and the November 15, 1988, notice of opportunity for a hearing detailed the grounds on which CVM proposed to refuse approval of NADA 99-940. CVM concludes that Purina's sodium sulfathiazole product is not and never has been the subject of an approved NADA, and is refusing approval for the application.

Therefore, under section 512(d)(1) of the act and § 514.200 (21 CFR 514.200), CVM is issuing this final order refusing to approve the following NADA's for the listed products, effective May 22, 1989, and, because the NADA's are no longer pending, the products may no longer be marketed under § 510.450. To help facilitate an orderly transition to the use of approved new animal drugs, however, distribution of the listed products by the sponsors is not required to cease until July 21, 1989.

NADA No.	Sponsor	Product name
A. Sulfamethazine Alone		
099-923	Quality Plus Essar Corp.	Sulfamethazine Powder.
099-953	Quality Plus Essar Corp.	Metzol-25 percent.
099-962	Quality Plus Essar Corp.	Sulfamethazine Bolus Formula 113.
100-095	Quality Plus Essar Corp.	Sulfamethazine Boluses 15 Grams.
100-177	Quality Plus Essar Corp.	SM-25 percent.
B. Sulfathiazole Alone or in Combination With Other Sulfonamide Products		
099-920	Quality Plus Essar Corp.	Triple Sulf Solution 24 percent. Sulfamethazine sodium. Sulfathiazole sodium. Sulfamerazine sodium.
099-927	Quality Plus Essar Corp.	Bi-Sulf Boluses. Sulfamethazine. Sulfathiazole. Boluses.
099-932	Quality Plus Essar Corp.	S G-Seven. Sulfamethazine. Sulfathiazole. Sulfamerazine.
099-947	Quality Plus Essar Corp.	TS-543 Solution. Sulfamethazine sodium. Sulfathiazole sodium. Sulfamerazine sodium.
099-952	Quality Plus Essar Corp.	Sulfathiazole sodium N.F.
100-019	Quality Plus Essar Corp.	Sulfathiazole sodium N.F.

NADA No.	Sponsor	Product name
100-089	Quality Plus Essar Corp.	Trisul I Boluses. Sulfamethazine. Sulfathiazole. Sulfamerazine.
100-091	Quality Plus Essar Corp.	Triple Sulf Solution 24 percent. Sulfamethazine sodium. Sulfathiazole sodium. Sulfamerazine sodium.
100-101	Quality Plus Essar Corp.	Sulfathiazole Boluses.
C. Sulfamethazine Alone or in Combination With Other Sulfonamide Products		
099-971	Quality Plus Essar Corp.	Sulfamethazine Boluses 16 Grams.
100-021	Quality Plus Essar Corp.	Bovo-Cox Powder Sulfamethazine.
100-174	I.D. Russell Co., Laboratories.	K Quad Sulf Feed Mixture. Sulfamethazine. Sulfathiazole. Sulfamethazine. Sulfathiazole. Sulfamethazine.

D. Sulfamerazine		
100-008	Quality Plus Essar Corp.	Double-M 12.5 percent Solution. Sodium sulfamethazine. Sodium sulfamerazine.

E. Sulfapyridine Alone or in Combination With Other Sulfonamide Products		
099-921	Quality Plus Essar Corp.	Triple Sulf 80. Sulfamethazine. Sulfathiazole. Sulfapyridine. Boluses.
099-935	Quality Plus Essar Corp.	Sulfapyridine Solution. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
099-976	Quality Plus Essar Corp.	Triple Sulf 4. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
099-979	Quality Plus Essar Corp.	Triple Sulf 4. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
099-980	Quality Plus Essar Corp.	Triple Sulf Solution. 8 Oral. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
099-982	Quality Plus Essar Corp.	Oral Triple Sulf Solution 12 percent. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.

NADA No.	Sponsor	Product name
100-002	Quality Plus Essar Corp.	Neutral Sulf-7. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
100-092	Quality Plus Essar Corp.	Oral Triple Sulf Solution 12 percent. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
100-096	Quality Plus Essar Corp.	Neutral Sulf 50 Triple Solution. Sulfonamide. Sulfamethazine. Sulfathiazole. Sulfapyridine.
100-100	Quality Plus Essar Corp.	Trisul II Boluses. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.
100-102	Quality Plus Essar Corp.	Sulfapyridine Boluses.
100-178	Quality Plus Essar Corp.	Sulf-Plex Triple Sulf Solution, Oral 12.5 percent. Sulfamethazine sodium. Sulfathiazole sodium. Sulfapyridine sodium.

F. Sulfanilamide Alone or in Combination With Other Sulfonamide Products		
099-931	Quality Plus Essar Corp.	Sulfanilamide.
099-934	Quality Plus Essar Corp.	Triple Sulf Boluses. Sulfanilamide. Sulfathiazole. Sulfamethazine. Sulfanilamide Boluses.
099-972	Quality Plus Essar Corp.	Sulfanilamide Boluses.

G. New Animal Drugs Containing Sulfonamides in Combination With Nutrients or Other Drugs

099-917	Quality Plus Essar Corp.	VI-Sul-Lyte. Sulfathiazole sodium. Sulfamethazine sodium. Vitamin A palmitate. Vitamin D. Riboflavin. Niacinamide. Vitamin B. Ethylenediamine dihydroiodide. Sodium, potassium, magnesium, calcium, chlorides, sulfates, and trace elements, iron, cobalt, zinc, copper, and manganese.
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NADA No.	Sponsor	Product name	NADA No.	Sponsor	Product name	NADA No.	Sponsor	Product name
099-918	Quality Plus Essar Corp.	Uterine Boluses. Urea. Sulfanilamide. Sulfathiazole.	099-948	Quality Plus Essar Corp.	Hubbard Triple Sulfa Solution. Sulfathiazole sodium. Sulfamethazine sodium. Sulfamerazine sodium. Potassium. Sodium. Magnesium. Calcium and chloride.	099-965	Quality Plus Essar Corp.	Triple Sulfa Bolus with Electrolytes. Formula 127. Sulfanilamide. Sulfathiazole. Sulfamethazine. Sodium. Potassium. Chloride. Calcium.
099-919	Quality Plus Essar Corp.	Sulfapyridine-iodine. Boluses. Sulfapyridine. Ethylenediamine dihydroiodide.				099-966	Quality Plus Essar Corp.	Kendall Calf Scours Tablets (Formula 115). Neomycin base. Sulfamethazine. Kaolin. Niacinamide. Vitamin A. Vitamin D.
099-924	Quality Plus Essar Corp.	Uterine Boluses with Acriflavine. Urea. Sulfathiazole. Sulfanilamide.	099-950	Quality Plus Essar Corp.	Triple Sulfa-888 Boluses. Sulfamethazine. Sulfathiazole. Sulfamerazine. Electrolytes.	099-967	Quality Plus Essar Corp.	Scour-Out 1400 (formerly known as MKP Giant Liquid-100 Formula 260). Neomycin sulfate. Sulfamethazine. Attapulgate. Pectin.
099-929	Quality Plus Essar Corp.	Triple Sulfa 80 with Electrolytes. Sulfamerazine. Sulfathiazole. Sulfamethazine. Calcium chloride. Sodium chloride. Potassium chloride. Magnesium chloride.	099-951	Quality Plus Essar Corp.	Metzol Boluses. Sulfamethazine. Electrolytes.	099-968	Quality Plus Essar Corp.	Masti-Kure Kalf-Caps (Formula 148). Neomycin sulfate. Sulfamethazine. Kaolin. Pectin.
099-933	Quality Plus Essar Corp.	Quality 12.5 percent Sodium. Sulfamethazine with Electrolytes. Sodium sulfamethazine. Sodium hydroxide. Sodium chloride. Sodium bicarbonate. Potassium chloride. Calcium gluconate. Magnesium chloride.	099-954	Quality Plus Essar Corp.	Triple Sulfa with Electrolytes. Sulfamethazine sodium. Sulfathiazole sodium. Sulfamerazine sodium. Sodium, potassium magnesium, calcium, and chloride.	099-970	Quality Plus Essar Corp.	Sulyte Powder. Sodium sulfathiazole. Sodium. Potassium. Calcium. Magnesium. Chloride. Ethylenediamine dihydroiodide.
099-939	Quality Plus Essar Corp.	Cattle Scour Boluses. Neomycin sulfate. Sulfamethazine. Pectin. Vitamin A. Vitamin D ₃ . Attapulgate.	099-957	Quality Plus Essar Corp.	Metzol Calf-Size Boluses. Sulfamethazine Electrolytes	099-981	Quality Plus Essar Corp.	Triple Sulfa with Electrolytes. Sulfathiazole sodium. Sulfamerazine sodium. Sulfamethazine sodium. Potassium. Calcium. Magnesium. Sodium. Chloride. Gluconate. Bicarbonate.
099-940	Purina Mills, Inc.....	Purina Electro-Zole. Sulfathiazole sodium. Sodium chloride. Sodium iodide. Potassium chloride.	099-958	Quality Plus Essar Corp.	Triple Sulfa-699 Boluses. Sulfamethazine. Sulfathiazole. Sulfanilamide. Electrolytes.			Merasul Soluble Powder. Sulfamerazine sodium. Sulfathiazole sodium. Vitamin A palmitate. Ethylenediamine dihydroiodide. Sodium acetate. Sodium chloride. Potassium chloride. Magnesium sulfate. Calcium lactate.
099-943	Quality Plus Essar Corp.	Bacterial Scour Boluses. Sulfamethazine. Neomycin Base.	099-961	Quality Plus Essar Corp.	Sulfa Urea Bolus. Formula 109. Sulfanilamide. Sulfathiazole. Urea.			
099-946	Quality Plus Essar Corp.	Calf Bacterial Scour Treatment 4-Way. Cattle Scour Treatment. Solution. Sulfamethazine. Neomycin. Kaolin. Pectin. Bismuth subcarbonate. Homatropine methylbromide.	099-963	Quality Plus Essar Corp.	Scour-Out for Baby Pig Scours. Neomycin sulfate. Sulfamethazine. Homatropine methylbromide. Kaolin and psyllium.	100-003	Quality Plus Essar Corp.	
			099-964	Quality Plus Essar Corp.	MKP Masti-Kure. Insertory Formula 206 A. Nitrofurazone. Sulfathiazole. Sulfamethazine. Urea.			

NADA No.	Sponsor	Product name
100-090	Quality Plus Essar Corp.	Trisul. Sulfamethazine sodium. Sulfathiazole sodium. Sulfamerazine sodium. Sodium hydroxide. Sodium chloride. Sodium bicarbonate. Potassium chloride. Magnesium sulfate. Sulfa-Urea Boluses. Sulfathiazole. Sulfamethazine. Urea.
100-097	Quality Plus Essar Corp.	Med-A-Sul. Sodium sulfathiazole. Sodium arsanilate anhydrous. Vitamin A (as palmitate). Vitamin D ₃ . Menadione sodium bisulfite. Calcium pantothenate. Niacin. Riboflavin. Thiamine hydrochloride. Ethylenediamine dihydroiodide. Potassium acetate. Sodium acetate. Sodium chloride. Potassium chloride. Magnesium sulfate. Calcium lactate.
100-181	Quality Plus Essar Corp.	

IV. References

The following references have been placed on display in the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857, and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Letter dated October 2, 1984, from R. G. Gresham, International Multifood Corp., to Charles E. Haines, CVM.
2. Letter dated December 27, 1984, from Charles E. Haines, CVM, to R. G. Gresham, International Multifoods Corp.
3. Letter dated January 15, 1975, from R. E. Broyles, Ralston Purina Co., to Bureau of Veterinary Medicine (now CVM).
4. Letter dated April 23, 1975, from Adriano R. Gabuten, Bureau of Veterinary Medicine (now CVM), to R. E. Broyles, Ralston Purina Co.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (sec. 512, 82 Stat. 343-351 (21 U.S.C. 360b)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Director of the Center for Veterinary Medicine (21 CFR 5.84).

Dated: May 12, 1989.

Gerald B. Guest,

Director, Center for Veterinary Medicine.

[FR Doc. 89-12152 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89N-0132]

Plascon-Gary, Inc.; Revocation of U.S. License No. 1020

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the revocation of the establishment license (U.S. License No. 1020) and the product license issued to Plascon-Gary, Inc., for the manufacture of Source Plasma. In a letter received by the agency on March 1, 1989, the firm requested that its establishment and product licenses be revoked and thereby waived an opportunity for a hearing.

DATE: The revocation of the establishment and product licenses was effective March 17, 1989.

FOR FURTHER INFORMATION CONTACT:

Andrea Chamblee, Center for Biologics Evaluation and Research (HFB-130), Food and Drug Administration, 8800 Rockville Pike, Bethesda, MD 20892, 301-295-8188.

SUPPLEMENTARY INFORMATION: FDA has revoked the establishment license (U.S. License No. 1020) and the product license issued to Plascon-Gary, Inc., for the manufacture of Source Plasma. Plascon-Gary, Inc., was operating and doing business at the Broadway Plasma Center, 5150 Broadway, Gary, IN. The mailing address of Plascon-Gary, Inc., is 3764 North Illinois St., Indianapolis IN 46208.

On December 14, 1988, through January 4, 1989, FDA inspected Plascon-Gary, Inc. This inspection revealed serious deviations from the applicable biologics regulations and the firm's standard operating procedures. These deviations included, but were not limited to, the following: (1) Failure to determine plasma protein values due to the lack of a functioning refractometer, although plasma protein values were entered in the donor record files (21 CFR 640.63(c)(5)); (2) failure to maintain whole blood at proper storage temperatures in that whole blood was centrifuged at temperatures of -2°C or lower (21 CFR 640.4(i)); (3) failure to maintain the sterility of the transfer sets used in processing in that plasma pooling technicians were observed on numerous occasions to touch the set spike prior to insertion into the blood

bags (21 CFR 640.68(a)); (4) failure to assure that a qualified, licensed physician was on the premises during operating hours, in that after 12 m. on Tuesdays, Wednesday, Fridays, and Saturday, during which time the firm was open for donations, the physician was not available (21 CFR 640.62); (5) failure to store supplies in a safe and sanitary manner in that the ceiling leaked in several places, including in the supply storage area (21 CFR 606.65); (6) failure to restrict the use of blood collected from a donor whose blood is known to be repeatedly reactive for antibody to human immunodeficiency virus in that at least five such units of Source Plasma were shipped for further manufacture into injectable products (21 CFR 610.45(c)); and (7) failure to maintain and have available to personnel an up-to-date record of all unsuitable donors in that a donor deferral list was only available when the assistant manager was at the firm (21 CFR 606.160(e)); and (8) the list was not updated to include unsuitable donors since May 1987 (21 CFR 606.160(e)).

FDA's investigation revealed that Plascon-Gary, Inc., was operating in significant noncompliance with the Federal standards designed to assure the safety, purity, and potency of plasma as well as the standards for donor protection which are intended to assure a continuous and health donor population. The investigation indicated that the individuals serving in supervisory positions at Plascon-Gary, Inc., did not adequately demonstrate their ability to operate the establishment in a manner that assures compliance with applicable regulations and the approved standard operating procedures for the firm.

Because these deviations represented a significant danger to health, FDA suspended the establishment license (U.S. License No. 1020) on January 19, 1989.

In a letter received by the agency on March 1, 1989 (dated February 17, 1989), Plascon-Gary, Inc., requested that its establishment and product licenses be revoked and thereby waived an opportunity for a hearing. The agency granted the licensee's request by letter to the firm dated March 17, 1989, issued under 21 CFR 601.5(a), which revoked the establishment license (U.S. License No. 1020) and the product license for the manufacture of Source Plasma issued to Plascon-Gary, Inc. FDA has placed copies of the letters dated January 19, February 17, and March 17, 1989, on file under the docket number found in brackets in the heading of this notice in

the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

Accordingly, under 21 CFR 12.38 and the Public Health Service Act (sec. 351, 58 Stat. 702 as amended (42 U.S.C. 262)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated under 21 CFR 5.68, the establishment license (U.S. License No. 1020) and the product license issued to Plascon-Gary, Inc., for the manufacture of Source Plasma were revoked effective March 17, 1989.

This notice is issued and published under 21 CFR 601.8 and the redelegation at 21 CFR 5.67.

Dated: May 11, 1989.

Gerald V. Quinnan, Jr.,
Deputy Director, Center for Biologics
Evaluation and Research.

[FR Doc. 89-12153 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89F-0121]

**Musashino Chemical Laboratory, Ltd.;
Filing of Food Additive Petition**

AGENCY: Food and Drug Administration.
ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that Musashino Chemical Laboratory, Ltd. has filed a petition proposing that the food additive regulations be amended to provide for the safe use of DL-alanine as a flavor enhancer for sweeteners in pickling mixtures.

FOR FURTHER INFORMATION CONTACT: Carl L. Giannetta, Center for Food Safety and Applied Nutrition (HFF-334), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-426-5487.

SUPPLEMENTARY INFORMATION: Under the Federal Food, Drug, and Cosmetic Act (sec. 409(b)(5), 72 Stat. 1786 (21 U.S.C. 348(b)(5))), notice is given that a petition (FAP 8A4106) has been filed by Musashino Chemical Laboratory, Ltd., 1-1 Kyobashi 1-Chome, Chuo-Ku, Tokyo 104, Japan, proposing that the food additive regulations be amended to provide for the safe use of DL-alanine as a flavor enhancer for sweeteners in pickling mixtures.

The potential environmental impact of this action is being reviewed. If the agency finds that an environmental impact statement is not required and this petition results in a regulation, the notice of availability of the agency's finding of no significant impact and the evidence supporting that finding will be published with the regulation in the

Federal Register in accordance with 21 CFR 25.40(c).

Dated: May 8, 1989.

Richard J. Ronk,
Acting Director, Center for Food Safety and
Applied Nutrition.

[FR Doc. 89-12107 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89M-0154]

**Zimmer USA; Premarket Approval of
Biological Ingrowth Anatomic Stem
(BIAS™) Fiber Metal Total Hip Stem**

AGENCY: Food and Drug Administration.
ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing its approval of the application by Zimmer USA, Warsaw, IN, for premarket approval under the Medical Device Amendments of 1976, of the Biological Ingrowth Anatomic Stem (BIAS™) Fiber Metal Total Hip Stem. After reviewing the recommendation of the Orthopedic and Rehabilitation Devices Panel, FDA's Center for Devices and Radiological Health (CDRH) notified the applicant, by letter of January 31, 1989, of the approval of the application.

DATE: Petitions for administrative review by June 21, 1989.

ADDRESS: Written requests for copies of the summary of safety and effectiveness data and petitions for administrative review to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Thomas J. Callahan, Center for Devices and Radiological Health (HFZ-410), Food and Drug Administration, 8757 Georgia Ave., Silver Spring, MD 20910, 301-427-7156.

SUPPLEMENTARY INFORMATION: On June 26, 1987, Zimmer USA, Warsaw, IN 46580-0708, submitted to CDRH an application for premarket approval of the Biological Ingrowth Anatomic Stem (BIAS™) Fiber Metal Total Hip Stem. The device is indicated for noncemented use in skeletally mature individuals undergoing primary surgery for rehabilitating hips damaged as a result of noninflammatory degenerative joint disease (NIDJD) or any of its composite diagnoses of osteoarthritis, avascular necrosis, traumatic arthritis, slipped capital epiphysis, fused hip, fracture of the pelvis, and diastrophic variant. The (BIAS™) Total Hip Stem is indicated for use with a cemented ultrahigh molecular weight polyethylene (UHMWP) acetabular cup to comprise a total hip

system. Such systems consist of a femoral component, or stem, that is placed in the intramedullary canal of the femur and an acetabular component cemented in place in the pelvis. Regulatory review of safety and effectiveness data for the cemented use of the BIAS™ Total Hip Stem is not required at this time, because use of the device with bone cement has been found to be substantially equivalent to a generic type of device marketed in interstate commerce prior to May 28, 1976 (see 21 CFR 888.3350).

On January 22, 1988, the Orthopedic and Rehabilitation Devices Panel, an FDA advisory committee, reviewed and recommended approval of the application. On January 31, 1989, CDRH approved the application by a letter to the applicant from the Acting Director of the Office of Device Evaluation, CDRH.

A summary of the safety and effectiveness data on which CDRH based its approval is on file in the Dockets Management Branch (address above) and is available from that office upon written request. Requests should be identified with the name of the device and the docket number found in brackets in the heading of this document.

A copy of all approved labeling is available for public inspection at CDRH—contact Thomas J. Callahan (HFZ-410), address above.

Opportunity for Administrative Review

Section 515(d)(3) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 360e(d)(3)) authorizes any interested person to petition, under section 515(g) of the act (21 U.S.C. 360e(g)), for administrative review of CDRH's decision to approve this application. A petitioner may request either a formal hearing under Part 12 (21 CFR Part 12) of FDA's administrative practices and procedures regulations or a review of the application and CDRH's action by an independent advisory committee of experts. A petition is to be in the form of a petition for reconsideration under § 10.33(b) (21 CFR 10.33(b)). A petitioner shall identify the form of review requested (hearing or independent advisory committee) and shall submit with the petition supporting data and information showing that there is a genuine and substantial issue of material fact for resolution through administrative review. After reviewing the petition, FDA will decide whether to grant or deny the petition and will publish a notice of its decision in the Federal Register. If FDA grants the petition, the notice will state the issue to be reviewed, the form of review to be

used, the persons who may participate in the review, the time and place where the review will occur, and other details.

Petitioners may, at any time on or before June 21, 1989, file with the Dockets Management Branch (address above) two copies of each petition and supporting data and information, identified with the name of the device and the docket number found in brackets in the heading of this document. Received petitions may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (secs. 515(d), 520(h), 90 Stat. 554-555, 571 (21 U.S.C. 360e(d), 360j(h)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Director, Center for Devices and Radiological Health (21 CFR 5.53).

Dated: May 10, 1989.

Walter E. Gundaker,

Acting Deputy Director, Center for Devices and Radiological Health.

[FR Doc. 89-12158 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89M-0153]

**Steridyne Laboratories, Inc.;
Premarket Approval of DYNASOL®**

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing its approval of the application by Steridyne Laboratories, Inc., Hollywood, CA, for premarket approval, under the Medical Device Amendments of 1976, of DYNASOL®. The device is to be manufactured under an agreement with Visioncare Associates, Los Angeles, CA, which has authorized Steridyne Laboratories, Inc., to incorporate information contained in its approved premarket approval applications for the Vis-sol Saline Spray and VISTA-SOL® Preservative-free Sterile Saline Solution. FDA's Center for Devices and Radiological Health (CDRH) notified the applicant, by letter of April 14, 1989, of the approval of the application.

DATE: Petitions for administrative review by June 21, 1989.

ADDRESS: Written requests for copies of the summary of safety and effectiveness data and petitions for administrative review to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: David M. Whipple, Center for Devices

and Radiological Health (HFZ-460), Food and Drug Administration, 8757 Georgia Ave., Silver Spring, MD 20910, 301-427-7940.

SUPPLEMENTARY INFORMATION: On October 11, 1988, Steridyne Laboratories, Inc., Hollywood, CA 90068, submitted to CDRH an application for premarket approval of DYNASOL®. The device is a sterile preservative-free buffered physiological saline solution indicated for use in the rinsing, heat disinfection, and storage after heat disinfection of soft (hydrophilic) contact lenses. The application includes authorization from Visioncare Associates, Los Angeles, CA 90048, to incorporate information contained in its approved premarket approval applications for the Vis-sol Saline Spray and VISTA-SOL® Preservative-free Sterile Saline Solution.

On April 14, 1989, CDRH approved the application by a letter to the applicant from the Acting Director of the Office of Device Evaluation, CDRH.

A summary of the safety and effectiveness data on which CDRH based its approval is on file in the Dockets Management Branch (address above) and is available from that office upon written request. Requests should be identified with the name of the device and the docket number found in brackets in the heading of this document.

A copy of all approved labeling is available for public inspection at CDRH—contact David M. Whipple (HFZ-460), address above.

Opportunity for Administrative Review

Section 515(d)(3) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 360e(d)(3)) authorizes any interested person to petition, under section 515(g) of the act (21 U.S.C. 360e(g)), for administrative review of CDRH's decision to approve this application. A petitioner may request either a formal hearing under Part 12 (21 CFR Part 12) of FDA's administrative practices and procedures regulations or a review of the application and CDRH's action by an independent advisory committee of experts. A petition is to be in the form of a petition for reconsideration under § 10.33(b) (21 CFR 10.33(b)). A petitioner shall identify the form of review requested (hearing or independent advisory committee) and shall submit with the petition supporting data and information showing that there is a genuine and substantial issue of material fact for resolution through administrative review. After reviewing the petition, FDA will decide whether to grant or deny the petition and will publish a notice of its decision in the

Federal Register. If FDA grants the petition, the notice will state the issue to be reviewed, the form of review to be used, the persons who may participate in the review, the time and place where the review will occur, and other details.

Petitioners may, at any time on or before June 21, 1989, file with the Dockets Management Branch (address above) two copies of each petition and supporting data and information, identified with the name of the device and the docket number found in brackets in the heading of this document. Received petitions may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (secs. 515(d), 520(d), 90 Stat. 554-555, 571 (21 U.S.C. 360e(d), 360j(h))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Director, Center for Devices and Radiological Health (21 CFR 5.53).

Dated: May 10, 1989.

Walter E. Gundaker,

Acting Deputy Director, Center for Devices and Radiological Health.

[FR Doc. 89-12157 Filed 5-19-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89M-0143]

**Schneider (USA) Inc.; Premarket
Approval of the Schneider
MICROSOFTAC™ Percutaneous
Transluminal Coronary Angioplasty
(PTCA) Catheter**

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing its approval of the application by Schneider (USA) Inc., Minneapolis, MN, for premarket approval, under the Medical Device Amendments of 1976, of the Schneider MICROSOFTAC™ Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheter. After reviewing the recommendation of the Circulatory System Devices Panel, FDA's Center for Devices and Radiological Health (CDRH) notified the applicant, by letter of April 14, 1989, of the approval of the application.

DATE: Petitions for administrative review by June 21, 1989.

ADDRESS: Written requests for copies of the summary of safety and effectiveness data and petitions for administrative review to the Dockets Management Branch (HFA-305), Food and Drug

Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Nadine Y. Rosile, Center for Devices and Radiological Health (HFZ-450), Food and Drug Administration, 8757 Georgia Ave., Silver Spring, MD 20910, 301-427-7371.

SUPPLEMENTARY INFORMATION: On April 7, 1988, Schneider (USA) Inc., Minneapolis, MN 55441, submitted to CDRH an application for premarket approval of the Schneider MICROSOFTAC™ Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheter. The catheter is indicated in patients with coronary artery disease who are acceptable candidates for coronary artery bypass graft surgery, and who meet at least one of the following selection criteria:

1. Patients with single vessel atherosclerotic lesions which are discrete, subtotal, noncalcified, and accessible to a dilatation catheter.
2. Patients with multiple vessel coronary artery disease wherein all of the critical stenoses are accessible to the angioplasty procedure.
3. Patients who have previously undergone coronary artery bypass surgery and who have recurrence of symptoms and the progression of disease in the native circulation, or stenosis or closure of the saphenous vein bypass grafts.

On November 29, 1988, the Circulatory System Devices Panel, an FDA advisory committee, reviewed and recommended approval of the application. On April 14, 1989, CDRH approved the application by a letter to the applicant from the Acting Director of the Office of Device Evaluation, CDRH.

A summary of the safety and effectiveness data on which CDRH based its approval is on file in the Dockets Management Branch (address above) and is available from that office upon written request. Requests should be identified with the name of the device and the docket number found in brackets in the heading of this document.

A copy of all approved labeling is available for public inspection at CDRH—contact Nadine Y. Rosile (HFZ-450), address above.

Opportunity for Administrative Review

Section 515(d)(3) of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. 360e(d)(3)) authorizes any interested person to petition, under section 515(g) of the act (21 U.S.C. 360e(g)), for administrative review of CDRH's decision to approve this application. A petitioner may request

either a formal hearing under Part 12 (21 CFR Part 12) of FDA's administrative practices and procedures regulations or a review of the application and CDRH's action by an independent advisory committee of experts. A petition is to be in the form of a petition for reconsideration under § 10.33(b) (21 CFR 10.33(b)). A petitioner shall identify the form of review requested (hearing or independent advisory committee) and shall submit with the petition supporting data and information showing that there is a genuine and substantial issue of material fact for resolution through administrative review. After reviewing the petition, FDA will decide whether to grant or deny the petition and will publish a notice of its decision in the **Federal Register**. If FDA grants the petition, the notice will state the issue to be reviewed, the form of review to be used, the persons who may participate in the review, the time and place where the review will occur, and other details.

Petitioners may, at any time on or before June 21, 1989, file with the Dockets Management Branch (address above) two copies of each petition and supporting data and information, identified with the name of the device and the docket number found in brackets in the heading of this document. Received petitions may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (secs. 515(d), 520(h), 90 Stat. 554-555, 571 (21 U.S.C. 360e(d), 360j(h))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Director, Center for Devices and Radiological Health (21 CFR 5.53).

Dated: May 10, 1989.

Walter E. Gundaker,

Acting Deputy Director, Center for Devices and Radiological Health.

[FR Doc. 89-12156 Filed 5-19-89; 8:45 am]

BILLING CODE 4180-01-M

National Institutes of Health

National Cancer Institute; Meeting

Pursuant to Pub. L. 92-463, notice is hereby given of the meeting of the Cancer Clinical Investigation Review Committee, National Cancer Institute, June 15-16, 1989, at the Historic Inns of Annapolis, 16 Church Circle, Annapolis, Maryland 21401.

This meeting will be open to the public on June 15 from 8:30 a.m. to 9 a.m. for reports by the Executive Secretary and Chairman of the Cancer Clinical Investigation Review Committee.

Attendance by the public will be limited to space available.

In accordance with the provisions set forth in secs. 552b(c)(4) and 552b(c)(6), Title 5, U.S.C. and sec. 10(d) of Pub. L. 92-463, the meeting will be closed to the public on June 15 from 9 a.m. to recess and on June 16 from 8 a.m. to adjournment for the review, discussion and evaluation of individual grant applications and cooperative agreements. These grant applications and cooperative agreements and the discussions could reveal confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with these applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Mrs. Winifred Lumsden, the Committee Management Officer, National Cancer Institute, Building 31, Room 10A06, National Institutes of Health, Bethesda, Maryland 20892 (301/497-5708) will provide summaries of the meeting and rosters of committee members upon request.

Dr. David Irwin, Executive Secretary, Cancer Clinical Investigation Review Committee, National Cancer Institute, Westwood Building, Room 832, National Institutes of Health, Bethesda, Maryland 20892 (301/496-7978) will provide substantive program information upon request.

Dated: May 16, 1989.

Betty J. Beveridge,

Committee Management Officer, NIH.

[FR Doc. 89-12356 Filed 5-19-89; 8:45 am]

BILLING CODE 4140-01-M

Office of Human Development Services

[Program Announcement No. 13672-893]

Minority Children Placements, Post Legal Adoption Services, and Placement of Foster Care Children

AGENCY: Administration for Children, Youth and Families (ACYF), Office of Human Development Services (OHDS).

ACTION: Announcement of the availability of funds and request for applications for projects to support adoption of children: publication of Appendix I.

SUMMARY: On April 25, 1989, the Office of Human Development Services announced the availability of funds for three programs of grants to support the adoption of children (54 FR 17822). The

purpose of these grants is to assist in increasing:

(A) The placements in adoptive families of minority children who are in foster care and have the goal of adoption with a special emphasis on recruitment of minority families;

(B) Post-legal adoption services for families who have adopted special needs children; and (C) the rate of placement of children in foster care legally free for adoption.

We are publishing Appendix I which was inadvertently omitted from the April 25 announcement.

DATES: The closing date for receipt of applications remains June 26, 1989.

ADDRESSES: Applications should be sent to: Office of Human Development Services, Grants and Contracts, Management Division, HDS/OMS, 200 Independence Avenue SW., Room 345-F, Hubert H. Humphrey Building, Washington, DC 20201, Attention: Mary White.

FOR FURTHER INFORMATION CONTACT: Delmar Weathers, (202) 245-0624.

SUPPLEMENTARY INFORMATION:

The following Appendix I is added to the Program Announcement published in the Federal Register on April 25, 1989 (54 FR 17822). It contains the necessary application forms, the instructions for their completion, assurances, and certification statements regarding a Drug-Free Workplace and Debarment.

Approved: May 16, 1989.

Mary Sheila Gall,
Assistant Secretary for Human Development Services.

BILLING CODE 4130-01-M

APPLICATION FOR
FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		2. DATE SUBMITTED		Applicant Identifier	
Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		3. DATE RECEIVED BY STATE		State Application Identifier	
		4. DATE RECEIVED BY FEDERAL AGENCY		Federal Identifier	
5. APPLICANT INFORMATION					
Legal Name:			Organizational Unit		
Address (give city, county, state, and zip code):			Name and telephone number of the person to be contacted on matters involving this application (give area code)		
6. EMPLOYER IDENTIFICATION NUMBER (EIN): [] [] - [] [] [] [] [] [] [] []			7. TYPE OF APPLICANT: (enter appropriate letter in box) <input type="checkbox"/>		
8. TYPE OF APPLICATION: <input type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es): <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify):			A. State H. Independent School Dist. B. County I. State Controlled Institution of Higher Learning C. Municipal J. Private University D. Township K. Indian Tribe E. Interstate L. Individual F. Intermunicipal M. Profit Organization G. Special District N. Other (Specify) _____		
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: [] [] [] [] [] [] [] []			9. NAME OF FEDERAL AGENCY:		
TITLE:			11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:		
12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.):					
13. PROPOSED PROJECT:		14. CONGRESSIONAL DISTRICTS OF:			
Start Date	Ending Date	a. Applicant b. Project			
15. ESTIMATED FUNDING:		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?			
a. Federal	\$.00	a. YES THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON DATE _____			
b. Applicant	\$.00	b. NO <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372			
c. State	\$.00	<input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW			
d. Local	\$.00				
e. Other	\$.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?			
f. Program Income	\$.00	<input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No			
g. TOTAL	\$.00				
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED					
a. Typed Name of Authorized Representative		b. Title		c. Telephone number	
d. Signature of Authorized Representative				e. Date Signed	

Previous Editions Not Usable

Standard Form 424 (REV 4-88)
Prescribed by OMB Circular A-102

Authorized for Local Reproduction

INSTRUCTIONS FOR THE SF 424

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry: | Item: | Entry: |
|-------|--|-------|--|
| 1. | Self-explanatory. | 12. | List only the largest political entities affected (e.g., State, counties, cities). |
| 2. | Date application submitted to Federal agency (or State if applicable) & applicant's control number (if applicable). | 13. | Self-explanatory. |
| 3. | State use only (if applicable). | 14. | List the applicant's Congressional District and any District(s) affected by the program or project. |
| 4. | If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank. | 15. | Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate <u>only</u> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. |
| 5. | Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application. | 16. | Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. |
| 6. | Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service. | 17. | This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes. |
| 7. | Enter the appropriate letter in the space provided. | 18. | To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.) |
| 8. | Check appropriate box and enter appropriate letter(s) in the space(s) provided:
— "New" means a new assistance award.
— "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date.
— "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. | | |
| 9. | Name of Federal agency from which assistance is being requested with this application. | | |
| 10. | Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested. | | |
| 11. | Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project. | | |

OMB Approval No. 0348-0044

BUDGET INFORMATION — Non-Construction Programs

SECTION A — BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.		\$	\$	\$	\$	\$
2.						
3.						
4.						
5. TOTALS		\$	\$	\$	\$	\$

SECTION B — BUDGET CATEGORIES

Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel	\$	\$	\$	\$	\$
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a - 6h)					
j. Indirect Charges					
k. TOTALS (sum of 6i and 6j)	\$	\$	\$	\$	\$
7. Program Income	\$	\$	\$	\$	\$

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Standard Form 424A (4-88)
Prescribed by OMB Circular A-102

SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	\$	\$	\$	\$
9.				
10.				
11.				
12. TOTALS (sum of lines 8 and 11)	\$	\$	\$	\$

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$	\$	\$	\$	\$
14. NonFederal					
15. TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$	\$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	\$	\$	\$	\$
17.				
18.				
19.				
20. TOTALS (sum of lines 16-19)	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION

(Attach additional Sheets if Necessary)

21. Direct Charges:	22. Indirect Charges:
23. Remarks	

INSTRUCTIONS FOR THE SF-424A

General Instructions

This form is designed so that application can be made for funds from one or more grant programs. In preparing the budget, adhere to any existing Federal grantor agency guidelines which prescribe how and whether budgeted amounts should be separately shown for different functions or activities within the program. For some programs, grantor agencies may require budgets to be separately shown by function or activity. For other programs, grantor agencies may require a breakdown by function or activity. Sections A, B, C, and D should include budget estimates for the whole project except when applying for assistance which requires Federal authorization in annual or other funding period increments. In the latter case, Sections A, B, C, and D should provide the budget for the first budget period (usually a year) and Section E should present the need for Federal assistance in the subsequent budget periods. All applications should contain a breakdown by the object class categories shown in Lines a-k of Section B.

Section A. Budget Summary
Lines 1-4, Columns (a) and (b)

For applications pertaining to a *single* Federal grant program (Federal Domestic Assistance Catalog number) and *not requiring* a functional or activity breakdown, enter on Line 1 under Column (a) the catalog program title and the catalog number in Column (b).

For applications pertaining to a *single* program requiring budget amounts by multiple functions or activities, enter the name of each activity or function on each line in Column (a), and enter the catalog number in Column (b). For applications pertaining to multiple programs where none of the programs require a breakdown by function or activity, enter the catalog program title on each line in Column (a) and the respective catalog number on each line in Column (b).

For applications pertaining to *multiple* programs where one or more programs require a breakdown by function or activity, prepare a separate sheet for each program requiring the breakdown. Additional sheets should be used when one form does not provide adequate space for all breakdown of data required. However, when more than one sheet is used, the first page should provide the summary totals by programs.

Lines 1-4, Columns (c) through (g)

For *new* applications, leave Columns (c) and (d) blank. For each line entry in Columns (a) and (b), enter in Columns (e), (f), and (g) the appropriate amounts of funds needed to support the project for the first funding period (usually a year).

Lines 1-4, Columns (c) through (g) (continued)

For *continuing* grant program applications, submit these forms before the end of each funding period as required by the grantor agency. Enter in Columns (c) and (d) the estimated amounts of funds which will remain unobligated at the end of the grant funding period only if the Federal grantor agency instructions provide for this. Otherwise, leave these columns blank. Enter in columns (e) and (f) the amounts of funds needed for the upcoming period. The amount(s) in Column (g) should be the sum of amounts in Columns (e) and (f).

For *supplemental grants and changes* to existing grants, do not use Columns (c) and (d). Enter in Column (e) the amount of the increase or decrease of Federal funds and enter in Column (f) the amount of the increase or decrease of non-Federal funds. In Column (g) enter the new total budgeted amount (Federal and non-Federal) which includes the total previous authorized budgeted amounts plus or minus, as appropriate, the amounts shown in Columns (e) and (f). The amount(s) in Column (g) should not equal the sum of amounts in Columns (e) and (f).

Line 5 — Show the totals for all columns used.

Section B Budget Categories

In the column headings (1) through (4), enter the titles of the same programs, functions, and activities shown on Lines 1-4, Column (a), Section A. When additional sheets are prepared for Section A, provide similar column headings on each sheet. For each program, function or activity, fill in the total requirements for funds (both Federal and non-Federal) by object class categories.

Lines 6a-i — Show the totals of Lines 6a to 6i in each column.

Line 6j — Show the amount of indirect cost.

Line 6k — Enter the total of amounts on Lines 6i and 6j. For all applications for new grants and continuation grants the total amount in column (5), Line 6k, should be the same as the total amount shown in Section A, Column (g), Line 5. For supplemental grants and changes to grants, the total amount of the increase or decrease as shown in Columns (1)-(4), Line 6k should be the same as the sum of the amounts in Section A, Columns (e) and (f) on Line 5.

INSTRUCTIONS FOR THE SF-424A (continued)

Line 7 - Enter the estimated amount of income, if any, expected to be generated from this project. Do not add or subtract this amount from the total project amount. Show under the program narrative statement the nature and source of income. The estimated amount of program income may be considered by the federal grantor agency in determining the total amount of the grant.

Section C. Non-Federal-Resources

Lines 8-11 - Enter amounts of non-Federal resources that will be used on the grant. If in-kind contributions are included, provide a brief explanation on a separate sheet.

Column (a) - Enter the program titles identical to Column (a), Section A. A breakdown by function or activity is not necessary.

Column (b) - Enter the contribution to be made by the applicant.

Column (c) - Enter the amount of the State's cash and in-kind contribution if the applicant is not a State or State agency. Applicants which are a State or State agencies should leave this column blank.

Column (d) - Enter the amount of cash and in-kind contributions to be made from all other sources.

Column (e) - Enter totals of Columns (b), (c), and (d).

Line 12 - Enter the total for each of Columns (b)-(e). The amount in Column (e) should be equal to the amount on Line 5, Column (f), Section A.

Section D. Forecasted Cash Needs

Line 13 - Enter the amount of cash needed by quarter from the grantor agency during the first year.

Line 14 - Enter the amount of cash from all other sources needed by quarter during the first year.

Line 15 - Enter the totals of amounts on Lines 13 and 14.

Section E. Budget Estimates of Federal Funds Needed for Balance of the Project

Lines 16 - 19 - Enter in Column (a) the same grant program titles shown in Column (a), Section A. A breakdown by function or activity is not necessary. For new applications and continuation grant applications, enter in the proper columns amounts of Federal funds which will be needed to complete the program or project over the succeeding funding periods (usually in years). This section need not be completed for revisions (amendments, changes, or supplements) to funds for the current year of existing grants.

If more than four lines are needed to list the program titles, submit additional schedules as necessary.

Line 20 - Enter the total for each of the Columns (b)-(e). When additional schedules are prepared for this Section, annotate accordingly and show the overall totals on this line.

Section F. Other Budget Information

Line 21 - Use this space to explain amounts for individual direct object-class cost categories that may appear to be out of the ordinary or to explain the details as required by the Federal grantor agency.

Line 22 - Enter the type of indirect rate (provisional, predetermined, final or fixed) that will be in effect during the funding period, the estimated amount of the base to which the rate is applied, and the total indirect expense.

Line 23 - Provide any other explanations or comments deemed necessary.

OMB Approval No. 0348-0040

ASSURANCES — NON-CONSTRUCTION PROGRAMS

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

- Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
- Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
- Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
- Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. §§ 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally assisted construction subagreements.

Standard Form 424B (4-88)
Prescribed by OMB Circular A-102

Authorized for Local Reproduction

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE	
APPLICANT ORGANIZATION		DATE SUBMITTED

Certification Regarding Drug-Free Workplace Requirements Grantees Other Than Individuals

By signing and/or submitting this application or grant agreement, the grantee is providing the certification set out below.

This certification is required by regulations implementing the Drug-Free Workplace Act of 1988, 45 CFR Part 76, Subpart F. The regulations, published in the January 31, 1989 *Federal Register*, require certification by grantees that they will maintain a drug-free workplace. The certification set out below is a material representation of fact upon which reliance will be placed when HHS determines to award the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or governmentwide suspension or debarment.

The grantee certifies that it will provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing a drug-free awareness program to inform employees about:

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and,

(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

(1) Abide by the terms of the statement; and,

(2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction;

(e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction;

(f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination; or

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

Certification Regarding Drug-Free Workplace Requirements Grantees Who Are Individuals

By signing and/or submitting this application or grant agreement, the grantee is providing the certification set out below:

This certification is required by the regulations implementing the Drug-Free Workplace Act of 1988, 45 CFR Part 76, Subpart F. The regulations, published in the January 31, 1989 *Federal Register*, require certification by grantees that their conduct of grant activity will be drug-free. The certification set out below is a material representation of fact upon which reliance will be placed when HHS determines to award the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or governmentwide suspension or debarment.

The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in conducting any activity with the grant.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters—Primary Covered Transactions

By signing and submitting this proposal, the applicant, defined as the primary participant in accordance with 45 CFR Part 76, certifies to the best of its knowledge and believe that it and its principals:

(a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or Agency;

(b) have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with

obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

The inability of a person to provide the certification required above will not necessarily result in denial of participation in this covered transaction. If necessary, the prospective participant shall submit an explanation of why it cannot provide the certification. The certification or explanation will be considered in connection with the Department of Health and Human Services' (HHS) determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

The prospective primary participant agrees that by submitting this proposal, it will include the clause entitled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transactions," provided below without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

[FR Doc. 89-12177 Filed 5-19-89; 8:45 am]

BILLING CODE 4130-01-M

Federal Council on the Aging; Meeting

Agency Holding the Meeting: Federal Council on the Aging.

Time and Date: Meeting begins at 9:00 a.m. and ends at 5:00 p.m. on Wednesday, June 7, 1989 and begins at 9:00 a.m. and ends at 4:00 p.m. on Thursday, June 8, 1989.

Place: On Wednesday, June 7, Senate Appropriations Room, S-126, U.S. Capitol, from 9:00 a.m. at 12 noon, and 2 p.m. to 5:00 p.m. in Conference Room 303-305A Hubert Humphrey Building, 200 Independence Avenue, SW. On Thursday, June 8, from 9:00 a.m. to 4:00 p.m., meeting will be held in Ashlawn

South, Vista International, 1400 M Street, NW., Washington, DC 20005.

Status: Meeting is open to the public.

Contact Persons: Barbara Forte, Room 4545, Cohen Federal Building, 330 Independence Ave., SW., Washington, DC 20201; Phone: 245-2451.

The Federal Council on the Aging was established by the 1973 Amendments to the Older Americans Act of 1965 (Pub. L. 93-29, 42 U.S.C. 3015) for the purpose of advising the President, the Congress, the Secretary of Health and Human Services, and the Commissioner on Aging on matters relating to the special needs of older Americans.

Notice is hereby given pursuant to the Federal Advisory Committee Act (Pub. L. 92-453, 5 U.S.C. App. 1, Sec. 10, 1976) that the Council will hold a meeting on June 7 & 8 from 9:00 a.m. 5:00 p.m. and from 9:00 a.m. 4:00 p.m. respectively. On June 7, the morning session will be a meeting with Members of Congress, and the afternoon session will be an Executive Session in Room 303-305A, Hubert Humphrey Building, 200 Independence Avenue, SW., Washington, DC 20201. On June 8, the Council will hold its regular open meeting in Ashlawn South, Vista International, 1400 M Street, NW., Washington, DC 20005.

The agenda for June 7 will include: Briefing on new legislation affecting the older population and a continued dialogue with Members of Congress; brief meeting with the newly elected Assistant Secretary for Human Development Services and the Deputy Assistant Secretary; remainder of the afternoon will be devoted to FCOA Committee meetings and prioritizing subject areas for 1989-1990. On June 8 at 2 p.m., is as follows: A discussion on establishing content and methodology for gathering special tabulations on pertinent demography relative to older Americans; Dr. Joyce T. Berry, Acting Commissioner, Administration on Aging and Cynthia Taeuber, Census Bureau will complete the meeting.

Dated: May 12, 1989.

Ingrid Azvedo,

Chairperson, Federal Council on the Aging.

[FR Doc. 89-12178 Filed 5-19-89; 8:45 am]

BILLING CODE 4130-01-M

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of Administration

[Docket No. N-89-1990]

Submission of Proposed Information Collections to OMB

AGENCY: Office of Administration, HUD.
ACTION: Notices.

SUMMARY: The proposed information collections requirements described below have been submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act. The Department is soliciting public comment on the subject proposals.

ADDRESS: Interested persons are invited to submit comment regarding these proposals. Comments should refer to the proposal by name and should be sent to: John Allison, OMB Desk Officer, Office of Management and Budget, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: David S. Cristy, Reports Management Officer, Department of Housing and Urban Development, 451 7th Street, Southwest, Washington, DC 20410, telephone (202) 755-6050. This is not a toll-free number. Copies of the proposed forms and other available documents submitted to OMB may be obtained from Mr. Cristy.

SUPPLEMENTARY INFORMATION: The Department has submitted the proposals for the collections of information, as described below, to OMB for review, as required by the Paperwork Reduction Act (44 U.S.C. Chapter 35).

The Notices list the following information: (1) The title of the

information collection proposal; (2) the office of the agency to collect the information; (3) the description of the need for the information and its proposed use; (4) the agency form number, if applicable; (5) what members of the public will be affected by the proposal; (6) how frequently information submissions will be required; (7) an estimate of the total numbers of hours needed to prepare the information submission including number of respondents, frequency of response, and hours of response; (8) whether the proposal is new or an extension, reinstatement, or revision of an information collection requirement; and (9) the names and telephone numbers of an agency official familiar with the proposal and of the OMB Desk Officer for the Department.

Authority: Section 3507 of the Paperwork Reduction Act, 44 U.S.C. 3507; section 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: May 15, 1989.

John T. Murphy,

Director, Information Policy and Management Division

Proposal: 24 CFR—Nehemiah Housing Opportunity Program (Part 280)
Office: Housing

Description of The Need For The Information and Its Proposed Use: Under the Nehemiah Housing Opportunity Program, HUD is authorized to make grants to non-profit organizations to enable them to provide loans to families purchasing homes that are constructed or substantially rehabilitated in accordance with HUD approved programs.

Form Number: None.

Respondents: Individuals or Households, State or Local Governments, and Non-Profit Institutions.

Frequency of Submission: Recordkeeping and On Occasion Reporting Burden:

	Number of respondents	x	Frequency of response	x	Hours per response	=	Burden Hours
Applications.....	150		1		8.0		1,200.0
Recordkeeping.....	10		1		306.7		3,066.5

Total Estimated Burden Hours: 4,266.5

Status: Revision

Contact: Stephen Martin, HUD, (202)

755-6723; John Allison, OMB, (202)

395-6880

Dated: May 15, 1989.

Proposal: Rental Rehabilitation Program
Office: Community Planning and Development

Description of The Need for The Information and Its Proposed use: HUD and the grantees are required to collect and report data relating to

properties rehabilitated and tenants assisted under the Program. The grantee maintains data on minority and women businesses and submits an application for Program funds. In addition, the grantee reports to HUD

annually an assessment of the effectiveness of the program and submits, if they desire, a schedule to

rehabilitate publicly owned properties.
Form Number: None

Respondents: State or Local Governments
Frequency of Submission: Other
Reporting Burden:

	Number of respondents	x	Frequency of response	x	Hours per response	=	Burden hours
Annual reporting.....	800		30.1		1.40		34,560
Recordkeeping.....	840		1.0		11.42		9,600

Total Estimated Burden Hours: 44,160
Status: Revision
Contact: Tony Lyons, HUD, (202) 755-6296; John Allison, OMB, (202) 395-6880
Dated: May 15, 1989.
Proposal: Application for Insurance of Advance Mortgage Proceeds

Office: Housing
Description of The Need For The Information and Its Proposed Use: This information will be submitted by an approved mortgagee requesting approval of advance of mortgage proceeds. HUD will use this information to ascertain approval amounts and to notify the applicable

lender that the requested and approved funds can be advanced.
Form Number: HUD-92403
Respondents: Businesses or Other For-Profit and Non-Profit Institutions
Frequency of Submission: On Occasion
Reporting Burden:

	Number of respondents	x	Frequency of response	x	Hours per response	=	Burden hours
HUD-92403.....	5,000		1		0.2		1,000

Total Estimated Burden Hours: 1,000
Status: Extension
Contact: Linda D. Cheatham, HUD, (202) 426-0035; John Allison, OMB, (202) 395-6880
Dated: May 15, 1989.

Proposal: Survey of Formaldehyde Levels in Manufactured Homes
Office: Housing
Description of The Need for The Information and Its Proposed Use: The survey will be used to monitor emission levels in manufactured homes constructed since February 11,

1985, HUD's effective date for formaldehyde control requirements, for plywood and particleboard panels.
Form Number: None
Respondents: Individuals or Households
Frequency of Submission: On Occasion
Estimated Burden Hours:

	Number of respondents	x	Frequency of response	x	Hours per response	=	Burden hours
Survey.....	300		1		1		300
Survey.....	100		2		1		200
On-Site Field Monitoring.....	40		1		2		80

Total Estimated Burden Hours: 580
Status: New
Contact: Richard Mendlen, HUD, (202) 755-6920; John Allison, OMB, (202) 395-6880
Dated: May 15, 1989.
[FR Doc. 89-12132 Filed 5-19-89; 8:45 am]
BILLING CODE 4210-01-M

Office of the Secretary

[Docket No. D-89-896; FR-2540]

Consolidated Delegations of Authority for Housing

AGENCY: Office of the Secretary, (HUD).
ACTION: Notice of consolidated delegations of authority.

SUMMARY: This notice consolidates all delegations of authority to the Assistant

Secretary for Housing-Federal Housing Commissioner and General Deputy Assistant Secretary for Housing-Deputy Federal Housing Commissioner. No substantive change in current delegations is intended, but obsolete material has been eliminated and changes have been made to standardize language and format.

EFFECTIVE DATE: May 1, 1989.

FOR FURTHER INFORMATION CONTACT: Charles M. Farbstein, Assistant General Counsel for Administrative Law, Office of General Counsel, Department of Housing and Urban Development, Room 10254, Washington, DC 20410, phone (202) 755-7137. This is not a toll-free number.

SUPPLEMENTARY INFORMATION: The Assistant Secretary for Housing-Federal Housing Commissioner and the General Deputy Assistant Secretary for Housing

each are delegated the power and authority of the Secretary of Housing and Urban Development with respect to all Housing programs and functions, including but not limited to those set forth below, with authority to redelegate to employees of the Department, unless otherwise specified. Each of them may issue rules or regulations to carry out Housing programs, and waive such rules or regulations to the extent authorized by statute or in the rules or regulations. They may not redelegate the authority to issue rules. They may not redelegate the waiver authority unless authorized by rules or regulations.

A. Multifamily Housing—the authority of the Secretary of Housing and Urban Development with respect to the multifamily programs and functions of the following:

1. Titles II, V, VI, VII, VIII, IX, XI of the National Housing Act (12 U.S.C. 1701, *et seq.*) and section 1, Title 1, of the National Housing Act, as amended (12 U.S.C. 1702) in exercising the power and authority delegated under this section.

2. Section 202 of the Housing Act of 1959 (12 U.S.C. 1701q) with respect to the program of loans for Housing for the Elderly or Handicapped.

3. Section 101 of the Housing and Urban Development Act of 1965 (12 U.S.C. 1701s) with respect to the Rent Supplement program for disadvantaged persons, including the authority to administer contracts and requirements for rent supplements.

4. Section 8 Housing assistance under the United States Housing Act of 1937 (42 U.S.C. 1437, *et seq.*), as amended, including the authority delegated under Executive Order 11196, to approve the undertaking of any annual contribution, grant or loan, or any agreement or contract for any annual contribution, grant or loan.

5. Delegation of Authority under Article VII of the agreement between the Department of Defense and the Department of Housing and Urban Development dated June 8 and June 18, 1966, respectively (published at 34 FR 18031 (Nov. 7, 1969)) concerning section 1013 of the Demonstration Cities and Metropolitan Development Act of 1966 (42 U.S.C. 3374): With respect to acquired properties to acquire title to, hold, manage, and sell for cash or credit by taking a purchase money mortgage in the name of the Secretary of Housing and Urban Development and in connection therewith to execute deeds of conveyance and all other instruments necessary to fulfill the purposes of section 1013 of the Demonstration Cities and Metropolitan Development Act of 1966 (42 U.S.C. 3374) and to make any or all determinations and to take any or all further actions in connection with the acquired properties which the Secretary of Defense is authorized to undertake pursuant to the provisions of the Act.

6. Title IV of the Housing Act of 1949 (42 U.S.C. 1441).

7. Section 106(a) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x), for the provision of information and technical assistance with respect to the construction and rehabilitation by public bodies, nonprofit organizations or cooperative organizations of housing for low or moderate income families including assistance with respect to self-help and mutual self-help programs and section 106(b) of the Housing and Urban Development Act of 1968, for the approval and cancellation of seed money loans to nonprofit sponsors of

multifamily housing. Section 207 of the Appalachian Regional Development Act of 1965 (40 U.S.C. Appendix A, Section 207) for the approval and cancellation of seed money loans to non-profit, limited dividend or cooperative organizations and public bodies and approval of seed money grants to non-profit organizations and public bodies.

8. Sections 201, 202, 203 and 204 of the Housing and Community Development Amendments of 1978.

9. Section 802 of the Housing and Community Development Act of 1974, State Agency Housing Programs.

10. The Housing Development Grant Program, pursuant to section 17 of the United States Housing Act of 1937, (42 U.S.C. 1437c).

11. The College Housing Debt Service Grant Program pursuant to Title IV of the Housing Act of 1950 (12 U.S.C. 1749).

12. Under 42 U.S.C. 3533 which designates the Assistant Secretary for Housing-Federal Housing Commissioner as the Assistant to the Secretary who shall be responsible for providing information and advice to nonprofit organizations desiring to sponsor housing projects assisted under programs administered by the Department.

13. The authority of the Secretary with respect to the Urban Homesteading Program under section 810(a) (transfer of properties) and (f) (listing of available properties) of the Housing and Community Development Act of 1974 (12 U.S.C. 1706e).

14. The authority of the Secretary under section 312 of the Housing Act of 1964 to manage, repair, lease, and otherwise take all actions necessary to protect the financial interest of the Secretary in properties as to which the Secretary is mortgagee-in-possession and to manage, repair, complete, remodel and convert, administer, dispose of, lease, sell or exchange for cash or credit at public or private sale, pay annual sums in lieu of taxes on, obtain insurance against loss on, and otherwise to deal with properties as to which the Secretary has acquired title under the section 312 Rehabilitation Loan Program.

15. The functions of the Secretary under section 7(i)(3) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(i)(3), concerning the sale, exchange, or lease of real or personal property and the sale or exchange of securities or obligations with respect to any multifamily project.

16. Title IV of the Housing and Community Development Amendments of 1978 (42 U.S.C. 8001, *et seq.*)

17. The authority of the Secretary of Housing and Urban Development with

respect to the Transitional Housing Demonstration Program as authorized by section 101(g), Pub. L. 99-500 (approved October 18, 1986) and Pub. L. 99-591 (approved October 30, 1986), the Supportive Housing Demonstration Program as reflected in Title IV, Subtitle C of the Stewart B. McKinney Homeless Assistance Act, Pub. L. 100-77 (approved July 22, 1987), and Title V of the Stewart B. McKinney Homeless Assistance Act.

18. Authority to endorse any checks or drafts in payment of insurance losses on which the United States of America, acting by and through the Secretary or his/her successors or assigns, is a payee (joint or otherwise) in connection with the disposition of the government's interest in property or lease of such property.

19. Section 2 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701t).

20. The Multifamily Mortgage Foreclosure Act of 1981 (12 U.S.C. 3701-3717).

21. To act as an Attesting Officer with authorization to cause the Seal of the Department of Housing and Urban Development to be affixed to such documents as may require its application and to certify that a copy of any book, record, paper, microfilm, or other document is a true copy of that in the files of the Department.

B. *Single Family Housing*—the authority of the Secretary of Housing and Urban Development with respect to Single Family programs and functions, and the authority with respect to Mortgage Activities (including Title I lenders) for both Single Family and Multifamily programs of the following:

1. Titles I, II, V, VI, VIII, IX, X of the National Housing Act (12 U.S.C. 1701, *et seq.*), except the section 255 (home equity conversion mortgage demonstration) program.

2. Title XI of the National Housing Act (12 U.S.C. 1749aaa, *et seq.*) with regard to Mortgage Activities.

3. Section 106(a) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x), for the provision of information and technical assistance.

4. Section 101(e) and 106(a)(1)(iii) and 106(a)(2) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701w) and 1701x(a) (1)(iii) and (a)(2) and section 237(e) of the National Housing Act (12 U.S.C. 1715z-2(e)).

5. Delegation of authority under Article VII of the agreement between the Department of Defense and the Department of Housing and Urban Development dated June 8 and June 18, 1968, respectively (published at 24 FR

18031 (Nov. 7, 1969)) concerning Section 1013 of the Demonstration Cities and Metropolitan Development Act of 1966 (42 U.S.C. 3374): with respect to acquired properties to acquire title to, hold, manage, and sell, for cash or credit by taking a purchase money mortgage in the name of the Secretary of Housing and Urban Development and in connection therewith to execute deeds of conveyance and all other instruments necessary to fulfill the purposes of section 1013 of the Demonstration Cities and Metropolitan Development Act of 1966 (42 U.S.C. 3374) and to make any or all determinations and to take any or all further actions in connection with acquired properties which the Secretary of Defense is authorized to undertake pursuant to the provisions of the Act.

6. The Interstate Land Sales Full Disclosure Act, Title XIV of the Housing and Urban Development Act of 1968, as amended (15 U.S.C. 1701, *et seq.*) except the power:

- a. To conduct hearings in accordance with 5 U.S.C. 556 and 557;
- b. To issue orders of determination after such hearings;
- c. To issue rules and regulations prescribing rights to appeal from the decisions of hearing examiners; and
- d. To transmit evidence of apparent violations of the Act to the Attorney General of the United States for the institution of any appropriate criminal proceedings.

7. The Real Estate Settlement Procedures Act of 1974, as amended (12 U.S.C. 2601, *et seq.*).

8. To prescribe standards for the design, construction, and alteration of structures for programs (other than public housing programs) prescribed under the National Housing Act (12 U.S.C. 1701, *et seq.*) and the United States Housing Act of 1937 (42 U.S.C. 1437-1437n).

9. To approve or disapprove variances from the design or construction standards for all programs (other than public housing programs) under the National Housing Act (12 U.S.C. 1701, *et seq.*) and the United States Housing Act of 1937 (42 U.S.C. 1437-1437n).

10. To evaluate and determine the technical suitability of housing products and materials under section 521 of the National Housing Act (12 U.S.C. 1735e) and to issue engineering and technical bulletins governing the acceptability of housing system components, materials, and methods of construction.

11. All matters and requirements of the National Manufactured Housing Construction and Safety Standards Act of 1974, Title VI of the Housing and Community Development Act of 1974 (42 U.S.C. 5401-5426).

12. To convey and execute deeds of conveyance, deeds of release, assignments, satisfactions of mortgages and any other written instrument relating to real or personal property or any interest therein heretofore or hereafter acquired by the Secretary pursuant to the National Housing Act, 12 U.S.C. 1701, *et seq.*

13. To develop and recommend policies and establish operating plans and procedures for the servicing of all home mortgages subsequent to final insurance endorsement under the National Housing Act.

14. To review and evaluate home mortgage insurance default experience, and to provide technical advice and guidance to approve mortgagees and field offices on all home mortgage servicing problems.

15. Section 106(b) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x) as it relates to loans to non-profit organizations for necessary expenses, prior to construction, of planning and of obtaining financing for the rehabilitation or construction of housing for low or moderate income families under section 235 of the National Housing Act or any other Federally assisted single family programs.

16. The Urban Homesteading Program under section 810(a) (transfer of properties) and (f) (listing of available properties) of the Housing and Community Development Act of 1974 (12 U.S.C. 1706e).

17. To perform the functions of the Secretary under section 7(i)(3) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(i)(3), concerning the sale, exchange, or lease of real or personal property and the sale or exchange of securities or obligations with respect to any single family property.

18. Authority to endorse any checks or drafts in payment of insurance losses on which the United States of America, acting by and through the Secretary or his/her successors or assigns, is a payee (joint or otherwise) in connection with the disposition of the government's interest in property or lease of such property.

19. To recommend, on the basis of information provided by the Assistant Secretary for Administration, action to be taken by the Secretary with respect to:

- a. Mortgage insurance reserve requirements and the adequacy of reserves based thereon.
- b. Approval of borrowing required for the payment of insurance claims and the repayment of funds based thereon to the U.S. Treasury.

c. Requesting appropriation of funds to cover insurance losses.

d. Determination of distributive shares payable from the mutual mortgage insurance fund.

20. Investment committee for mortgage insurance programs and delegations of authority thereto. There shall be an investment committee for mortgage insurance programs consisting of the Assistant Secretary for Housing-Federal Housing Commissioner and the Assistant Secretary for Administration which shall perform the following functions:

a. To make determinations, based on information provided by the Assistant Secretary for Administration, with respect to the investment of monies held in the mortgage insurance funds and the committee shall direct the Assistant Secretary for Administration to invest such monies accordingly.

b. To approve the terms of offers to sell and to approve the sale of purchase money mortgages and assign mortgage notes to approved mortgagees.

21. Section 312 of the Housing Act of 1964, (42 U.S.C. 1452b), with respect to property disposition functions.

22. To act as an Attesting Officer with authorization to cause the seal of the Department of Housing and Urban Development to be affixed to such documents as may require its application and to certify that a copy of any book, record, paper, microfilm or other document is a true copy of that in the files of the Department.

23. The Nehemiah Housing Opportunity grant program, sections 609-613 of the Housing and Community Development Act of 1987 (12 U.S.C. 1715e).

24. The authority to select applications in conjunction with section 213(d)(4) of the Housing and Community Development Act of 1974.

C. Policy, Financial Management and Administration 1. To exercise the authority of the Secretary of Housing and Urban Development with respect to compliance by contractors or participants involved in projects to be financed with mortgages to be insured under the National Housing Act and in connection with all Housing programs except those under section 2, Title I of the National Housing Act (12 U.S.C. 1701, *et seq.*)

2. To determine whether there exist compelling reasons to justify continued business dealings with a person suspended or debarred on a government wide basis.

Authority Expected

Authority excepted from this delegation of authority from the Secretary of Housing and Urban Development to the Assistant Secretary for Housing—Federal Housing Commissioner and the General Deputy Assistant Secretary for Housing:

1. To issue notes or other obligations for purchase by the Secretary of the Treasury.

2. To sue and be sued.

Conclusive Evidence of Authority

Any instrument or document executed in the name of the Secretary by an employee of the Department of Housing and Urban Development under the authority of this delegation purporting to relinquish or transfer any right, title or interest in or to real or personal property shall be conclusive evidence of the authority of such employee to act for the Secretary in executing such instrument or document.

Delegations Revoked

The following delegations of authority are revoked:

- (1) 24 CFR 200.40-200.44
- (2) 24 CFR 200.50
- (3) 41 FR 24755 (June 18, 1976) [Docket No. D-76-437]
- (4) 41 FR 32635 (August 4, 1976) [Docket No. D-76-452]
- (5) 43 FR 26616 (June 21, 1978) [Docket No. D-78-503]
- (6) 36 FR 5006-7 (March 16, 1971) [FR Doc. 71-3641], as amended by 36 FR 12182 (June 26, 1971) [Docket No. D-71-114]; 37 FR 9251 (May 6, 1972) [Docket No. D-72-173]; 37 FR 15444 (August 2, 1972) [Docket No. D-71-191]; 40 FR 39920 (August 29, 1975) [Docket No. D-75-364]; 41 FR 24622 (June 16, 1976) [Docket No. D-76-249]; 42 FR 59559 (Nov. 18, 1977) [Docket No. D-77-495]; and 46 FR 23120 (April 23, 1971) [Docket No. D-81-645]
- (7) 40 FR 22577-8 (May 23, 1975) [Docket No. D-75-330]
- (8) 37 FR 1072 (January 22, 1972) [Docket No. D-72-141]
- (9) 44 FR 10554 (February 21, 1979) [Docket No. D-79-543], as corrected by 44 FR 13584 (March 12, 1979) [Docket No. D-79-543]
- (10) 44 FR 10554 (February 21, 1979) [Docket No. D-79-544]
- (11) 48 FR 49386 (October 25, 1983) [Docket No. D-83-709]
- (12) 48 FR 24211 (May 31, 1983) [Docket No. D-83-697]
- (13) 49 FR 1942 (January 16, 1984) [Docket No. D-84-725]
- (14) 49 FR 47656 (December 6, 1984) [Docket No. D-84-725]
- (15) 46 FR 43312-3 (August 26, 1981) [Docket No. D-81-656]
- (16) 46 FR 57348 (November 23, 1981) [Docket No. D-81-660]
- (17) 48 FR 34339 (July 28, 1983) [Docket No. D-83-702]
- (18) 36 FR 5005-6 (March 16, 1971) [FR Doc. 71-3642], as amended by 37 FR 3376 (Feb.

15, 1972) [Docket No. D-72-147]; 37 FR 9251 (May 6, 1972) [Docket No. D-72-174]; 37 FR 17774 (August 31, 1972) [Docket No. D-72-200]; 37 FR 18232 (Sept. 8, 1972) [Docket No. D-72-200]; 38 FR 4430 (Feb. 14, 1973) [Docket No. D-73-218]; 40 FR 37075 (August 25, 1975) [Docket No. D-85-361]; 40 FR 39920 (August 29, 1975) [Docket No. D-75-365]; 40 FR 50557 (Oct. 30, 1975) [Docket No. D-75-377]; 40 FR 56710 (Dec. 4, 1975) [Docket No. D-75-378]; 42 FR 37603 (July 22, 1977) [Docket No. D-77-489]; and 50 FR 42097-8 (Oct. 17, 1985) [Docket No. D-85-805]

(19) 37 FR 10407 (May 20, 1972) [Docket No. D-72-180]

(20) 36 FR 8821 (May 13, 1971) [FR Doc. 71-6712]

(21) 52 FR 5587 (February 25, 1987) [Docket No. D-87-832]

(22) 40 FR 27712 (July 1, 1975) [Docket No. D-75-340]

Savings Clause

Any redelegation issued, or action taken, under any delegation or redelegation revoked herein shall remain in effect until expressly modified or revoked.

Authority: Sec. 7(d), Department of HUD Act (42 U.S.C. 3535(d))

Dated: May 1, 1989.

Jack Kemp,

Secretary.

[FR Doc. 89-12130 Filed 5-19-89; 8:45 am]

BILLING CODE 4210-32-M

Office of the Assistant Secretary for Housing—Federal Housing Commissioner

[Docket No. N-89-1917; FR-2606]

Unutilized and Underutilized Federal Buildings and Real Property Determined to Be Suitable for Use for Facilities to Assist the Homeless

AGENCY: Office of the Assistant Secretary for Housing-Federal Housing Commissioner, HUD.

ACTION: Notice.

SUMMARY: This Notice identifies unutilized and underutilized Federal property determined by HUD to be suitable for possible use for facilities to assist the homeless.

DATE: May 22, 1989.

ADDRESS: For further information, contact Morris Bourne, Department of Housing and Urban Development, Room 9140, 451 Seventh Street SW., Washington, DC 20410; telephone (202) 755-9075; TDD number for the hearing- and speech-impaired (202) 426-0015. (These telephone numbers are not toll-free.)

SUPPLEMENTARY INFORMATION: In accordance with the December 12, 1988

court order in *National Coalition for the Homeless v. Veterans Administration*, D.C.D.C. No. 88-2503-OG, HUD publishes a Notice, on a weekly basis, identifying unutilized and underutilized Federal buildings and real property determined by HUD to be suitable for use for facilities to assist the homeless. Today's Notice is for the purpose of announcing that no additional properties have been determined suitable this week.

Date: May 16, 1989

James E. Schoenberger,

General Deputy, Assistant Secretary for Housing-Federal, Housing Commissioner.

[FR Doc. 89-12198 Filed 5-19-89; 8:45 am]

BILLING CODE 4210-27-M

DEPARTMENT OF THE INTERIOR**Bureau of Land Management**

[AK-968-4230-15; AA-6666-B and AA-6666-A2]

Alaska Native Claims Selection

In accordance with Departmental regulation 43 CFR 2650.7(d), notice is hereby given that a decision to issue conveyance under the provisions of Sec. 14(a) of the Alaska Native Claims Settlement Act of December 18, 1971, 43 U.S.C. 1601, 1613(a), will be issued to Ahtna, Incorporated (for the village of Gakona) for approximately 8,032 acres. The lands involved are in the vicinity of Gakona, Alaska.

Copper River Meridian, Alaska

T. 7 N., R. 1 E.

T. 7 N., R. 2 E.

T. 8 N., R. 1 E.

A notice of the decision will be published once a week, for four (4) consecutive weeks, in the VALDEZ VANGUARD. Copies of the decision may be obtained by contacting the Alaska State Office of the Bureau of Land Management, 222 West Seventh Avenue, #13, Anchorage, Alaska 99513-7599 (907) 271-5960.

Any party claiming a property interest which is adversely affected by the decision, an agency of the Federal government or regional corporation, shall have until June 21, 1989 to file an appeal. However, parties receiving service by certified mail shall have 30 days from the date of receipt to file an appeal. Appeals must be filed in the Bureau of Land Management at the address identified above, where the requirements for filing an appeal may be obtained. Parties who do not file an appeal in accordance with the

requirements of 43 CFR Part 4, Subpart E, shall be deemed to have waived their rights.

Ramona Chinn,

Chief, Branch of Cook Inlet and Ahtna Adjudication.

[FR Doc. 89-12169 Filed 5-19-89; 8:45 am]

BILLING CODE 4310-JA-M

[NM-030-09-4410-08]

Availability of Proposed White Sands Resource Management Plan Amendment/Final Environmental Impact Statement (EIS) for McGregor Range

AGENCY: Bureau of Land Management, Las Cruces District, White Sands Resource Area, New Mexico.

ACTION: Notice of Availability.

SUMMARY: The Bureau of Land Management (BLM) announces the availability of the Proposed White Sands Resource Management Plan (RMP) Amendment/Final Environmental Impact Statement (EIS) for McGregor Range in Otero County in south-central New Mexico. The need for the RMP Amendment resulted from the passage of the Military Lands Withdrawal Act in 1986, which withdrew the land for military purposes. The plan amendment will guide BLM programs and management practices on McGregor Range. The Proposed Plan is a modified version of the Preferred Alternative presented in the Draft. The Proposed RMP Amendment/Final EIS is available for public review. A 30-day protest period is provided as required by BLM planning regulations (43 CFR 1610.5-2).

DATE: Protests on the Proposed Plan must be postmarked no later than June 26, 1989.

ADDRESS: Protests must be sent to the Director (760), Bureau of Land Management, Room 909, Premier Bldg., 18th and C Streets NW., Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: P. Robert Alexander, Area Manager, or Willis Bird, Team Leader, White Sands Resource Area, (505) 525-8228 or FTS 571-8312.

SUPPLEMENTARY INFORMATION: The planning area is the 608,385 acres of withdrawn public land within McGregor Range in Otero County, New Mexico. A map showing the area is available in the White Sands Resource Area Office. The single planning issue addressed is to what degree public use of the resources will be allowed and the intensity of BLM resource management on McGregor Range. Public use of McGregor Range is limited by conditions and restrictions

necessary for military use of the land for the purposes stated in the Military Lands Withdrawal Act of 1986 (Pub. L. 99-606). For resources and their uses under BLM's administration and control, the Proposed RMP Amendment/Final EIS describes the Proposed Plan for the public use of the resources.

The Proposed Plan would designate four existing vegetation study sites (3,910 acres) as the McGregor Black Grama Grassland Area of Critical Environmental Concern (ACEC). The ACEC would be managed according to an existing Cooperative Agreement between the BLM, the Army, and New Mexico State University.

The study sites meet BLM's ACEC relevance and importance criteria because the sites contain rare pristine black grama grasslands and there is a need to highlight public and management interest in the unique resource. Approval of the RMP would constitute designation of the ACEC.

The Proposed Plan would also designate McGregor Range as "limited to designated roads and trails" for authorized off-road vehicle (ORV) use, except for 40 acres which would be closed to all ORV use for protection of cultural resources.

Any person who is on record for participating in the planning process and has an interest that may be adversely affected may protest approval of the plan amendment. Protests should be made to the BLM Director with the following information: (1) Name, mailing address, telephone number, and interest of the person filing the protest; (2) a statement of the concern or concerns being protested; (3) a statement of the part or parts being protested; (4) a copy of all documents addressing the concern or concerns that were submitted during the planning process by the protesting party or an indication of the date the concern or concerns were discussed for the records; and (5) a concise statement explaining why the BLM New Mexico State Directors's decision is wrong.

At the end of the 30-day protest period, the Proposed Plan, excluding any portions under protest, will become final. Approval will be withheld on any portion of the Plan under protest until final action has been completed on such protest. The Approved Plan will be published following the Record of Decision (ROD). Individuals not wishing to protest the Plan, but wanting to comment, may send comments to the BLM, Las Cruces District, White Sands Resource Area, 1800 Marquess Street, Las Cruces, New Mexico 88005. All comments received will be considered in preparation of the ROD.

Copies of the Proposed RMP Amendment/Final EIS have been distributed to a mailing list of identified interested parties. A limited number of additional copies are available at the White Sands Resource Area Office, 1800 Marquess Street, Las Cruces, New Mexico 88005, and at the Real Property Management Branch, Directorate of Engineering and Housing, Bldg. 1160 Ft. Bliss, Texas 79916. Public reading copies are available for review at the BLM State Office, U.S. Federal Building, Santa Fe, New Mexico, and at public and university libraries in Las Cruces and Alamogordo, New Mexico, and El Paso, Texas.

Gilbert O. Lockwood,

Acting State Director.

Dated: May 12, 1989.

[FR Doc. 89-12143 Filed 5-19-89; 8:45 am]

BILLING CODE 4310-FB-M

INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

Overseas Private Investment Corporation

Agency Report Forms Under OMB Review

AGENCY: Overseas Private Investment Corporation.

ACTION: Request for comments.

SUMMARY: Under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35), agencies are required to submit information collection requests to OMB for review and approval, and to publish a notice in the *Federal Register* notifying the public that the Agency has made such a submission. The proposed forms under review are summarized below.

DATES: Comments must be received on or before June 5, 1989. If you anticipate commenting on the form but find that time to prepare will prevent you from submitting comments promptly, you should advise the OMB Reviewer and the Agency Submitting Officer of your intent as early as possible.

ADDRESSES: Copies of the subject form and the request for review submitted to OMB may be obtained from the Agency Submitting Officer. Comments on the form should be submitted to the Agency Submitting Officer and the OMB Reviewer.

FOR FURTHER INFORMATION CONTACT:

OPIC Agency Submitting Officer: L.

Jacqueline Brent, Office of Personnel and Administration, Overseas Private Investment Corporation, 1615 "M"

Street, NW., Suite 461, Washington, DC 20527; (202) 457-7151.

OMB Reviewer: John Harrigan, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Washington, DC 20503; (202) 395-7340.

Summary of Form(s) Under Review

Type of Respondent: Business or other institutions.

Standard Industrial Classification Codes: All.

Description of Affected Public: U.S. companies investing overseas.

Form 1

Type of Request: Revision.

Form No. & Title: OPIC-52; Application for Political Risk Investment Insurance.

Frequency of Use: Other—once per investor per project.

Number of Responses: 250

Reporting Hours: 500

Federal Cost: \$10,000

Authority for Information Collection: Section 234(k) of the Foreign Assistance Act of 1961, as amended.

Abstract (Needs and Uses): Application is the principal document used to determine if OPIC should issue insurance for investments in less developed countries. The form is needed so OPIC can assess the project risk, the investor's eligibility and U.S. and host country effects.

Form 2

Type of Request: Revision.

Form No. & Title: OPIC-81; Contractors and Exporters Program: Insurance Application Form.

Frequency of Use: Nonrecurring.

Number of Responses: 100

Reporting Hours: 200

Federal Cost: \$1,000

Authority for Information Collection: Section 231 and 234(a) of the Foreign Assistance Act of 1961, as amended.

Abstract (Needs and Uses): U.S. contractors and other businesses who seek OPIC insurance under the Contractors and Exporters program submit the form to fulfill OPIC's eligibility requirements. These businesses undertake exporting to less developed countries and generally seek to insure their bid guarantees, performance bonds, and disputes clauses in contracts with foreign buyers.

Form 3

Type of Request: Extension.

Form No. & Title: OPIC-82; OPIC Opportunity Bank Company Profile.

Frequency of Use: Other—once per investor.

Number of Responses: 500

Reporting Hours: 15 minutes

Federal Cost: \$1,807.50

Authority for Information Collection: Section 234(d) of the Foreign Assistance Act of 1961, as amended.

Abstract (Needs and Uses): This form will allow American companies to register their concepts for international investments in developing countries.

Form 4

Type of Request: Extension.

Form No. & Title: OPIC-83; OPIC Opportunity Bank Project Profile.

Frequency of Use: Other—once per investor.

Number of Responses: 500

Reporting Hours: 200

Federal Cost: \$1,807.50

Authority for Information Collection: Section 234(d) of the Foreign Assistance Act of 1961, as amended.

Abstract (Needs and Uses): This form will allow companies in developing countries to register projects available to American corporations seeking investments abroad.

Date: April 25, 1989

James R. Offutt,

Office of the General Counsel.

[FR Doc. 89-12171 Filed 5-19-89; 8:45 am]

BILLING CODE 6116-01-M

INTERSTATE COMMERCE COMMISSION

[Docket No. AB-1 (Sub. 201X)]

Chicago & North Western Transportation Co.; Abandonment Exemption In Marquette County, MI

Applicant has filed a notice of exemption under 49 CFR 1152 Subpart F—Exempt Abandonments to abandon its 3.1-mile line of railroad known as the Winthrop Branch, between milepost 10.4 and milepost 13.5, near Ispeming, in Marquette County, MI.

Applicant has certified that: (1) No local traffic has moved over the line for at least 2 years; (2) any overhead traffic on the line can be rerouted over other lines; and (3) no formal complaint filed by a user of rail service on the line (or a State or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Commission or with any U.S. District Court or has been decided in favor of the complainant within the 2-year period. The appropriate State agency has been notified in writing at least 10 days prior to the filing of this notice.

As a condition to use of this exemption, any employee affected by the abandonment shall be protected

under *Oregon Short Line R. Co.—Abandonment—Goshen*, 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10505(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance has been received, this exemption will be effective on June 22, 1989 (unless stayed pending reconsideration). Petitions to stay that do not involve environmental issues,¹ formal expressions of intent to file an offer of financial assistance under 49 CFR 1152.27(c)(2),² and trail use/rail banking statements under 49 CFR 1152.29 must be filed by June 2, 1989.³ Petitions for reconsideration and requests for public use conditions under 49 CFR 1152.28 must be filed by June 12, 1989, with: Office of the Secretary, Case Control Branch, Interstate Commerce Commission, Washington, DC 20423.

A copy of any petition filed with the Commission should be sent to applicant's representative: Christopher A. Mills, Chicago and North Western Transportation Company, One North Western Center, Chicago, IL 60606.

If the notice of exemption contains false or misleading information, use of the exemption is void *ab initio*.

Applicant has filed an environmental report which addresses environmental or energy impacts, if any, from this abandonment.

The Section of Energy and Environment (SEE) will prepare an environmental assessment (EA). SEE will issue the EA by May 26, 1989.

Interested persons may obtain a copy of the EA from SEE by writing to it (Room 3115, Interstate Commerce Commission, Washington, DC 20423) or by calling Carl Bausch, Chief, SEE at (202) 275-7316. Comments on environmental and energy concerns must be filed within 15 days after the EA becomes available to the public.

¹ A stay will be routinely issued by the Commission in those proceedings where an informed decision on environmental issues (whether raised by a party or by the Section of Energy and Environment in its independent investigation) cannot be made prior to the effective date of the notice of exemption. See *Exemption of Out-of-Service Rail Lines*, 4 I.C.C.2d 400 (1988). Any entity seeking a stay involving environmental concerns is encouraged to file its request as soon as possible in order to permit this Commission to review and act on the request before the effective date of this exemption.

² See *Exempt. of Rail Abandonment—Offers of Finan. Assist.*, 4 I.C.C.2d 164 (1987), and final rules published in the FEDERAL REGISTER on December 22, 1987 (52 FR 48440-48446).

³ The Commission will accept a late-filed trail use statement so long as it retains jurisdiction to do so.

Environmental, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Decided: May 15, 1989.

By the Commission, Jane F. Mackall,
Director, Office of Proceedings.

Noreta R. McGee,
Secretary.

[FR Doc. 89-12140 Filed 5-19-89; 8:45 am]

BILLING CODE 7035-01-M

Release of Waybill Data for Use by DNS Associates, Inc., for an Unnamed Class I Rail System

The Commission has received a request from DNS Associates, Inc., for permission to use certain data from the Commission's 1987 Waybill Sample. The data will be used exclusively by DNS for a study, to be performed for a Class I rail system, to update the carrier's analysis of the potential impacts of various rail consolidations. DNS Associates, Inc., will use the information from the ICC Waybill File in its traffic diversion model, and provide only the aggregate impacts on carloads, net tonnages, and the carrier's revenues to the client railroad. No geographic detail information will be released to the client railroad, below the level of total traffic flows moving via various junctions. The data requested are:

1. Records of all traffic with one endpoint in AL, CT, DC, DE, FL, GA, IL, IN, KY, LA, MA, MD, ME, MI, MO, MS, NB, NC, NF, NH, NJ, NS, NY, OH, ON, PA, PE, PQ, PR, RI, SC, TN, VA, VT, or WV and the other endpoint in AB, AK, AR, AL, AZ, BC, CA, CO, CT, DE, FL, IA, ID, IL, IN, KS, LA, MA, MB, MD, ME, MI, MN, MO, MS, MT, NB, ND, NE, NF, NH, NJ, MM, NS, NT, NV, NY, OH, OK, ON, OR, PA, PE, PQ, RI, SD, SK, TX, UT, VA, VT, WA, WI, WV, or WY.

2. For the above traffic, the following fields are requested: Serial Number, Number of Carloads, Car Initial, TOFC/COFC Plan, Number of TOFC/COFC units, Two-digit Commodity Code (STCC-HAZMAT), Billed Weight, Freight Revenue, Stratum Identification Code, Subsample Code, Origin FSAC, Origin Railroad, All Interchanges, All Bridge Railroads, Termination Railroad, AAR Car Type, Origin SPLC, Destination SPLC, Junction Frequency, Expansion Factor, Origin State Alpha, Destination State Alpha, Origin Freight Territory, and Destination Freight Territory.

The Commission requires rail carriers to file waybill sample information if in any of the past three years they terminated on their lines: (1) 4,500 revenue carloads or (2) 5 percent of revenue carloads in any one State (49 C.F.R. Part 1244). From the waybill information, the Commission has developed a Public Use Waybill File that has satisfied the majority of all our waybill data requests while protecting the confidentiality of proprietary data submitted by the railroads. However, if confidential waybill data are requested, as in this case, we will consider releasing the data only after certain protective conditions are met and public notice is given. More specifically, under the Commission's current policy for handling waybill requests, we will not release any confidential waybill data until after: (1) Public notice is provided so affected parties have an opportunity to object and (2) certain requirements designed to protect the data's confidentiality are agreed to by the requesting party [Ex Parte No. 385(Sub-No. 2), 52 FR 12415, April 16, 1987].

Accordingly, if any parties object to this request, they should file their objections (an original and 2 copies) with the Director of the Commission's Office of Transportation Analysis (OTA) within 14 calendar days of the date of this notice. They should also include all grounds for objections to the full or partial disclosure of the requested data. The Director of OTA will consider these objections in determining whether to release the requested waybill data. Any parties who objected will be timely notified of the Director's decision.

Contact: James A. Nash, (202) 275-6864.

Noreta R. McGee,
Secretary.

[FR Doc. 89-12141 Filed 5-19-89; 8:45 am]

BILLING CODE 7035-01-M

JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES

Advisory Committee on Actuarial Examinations; Meeting

Notice is hereby given that the Advisory Committee on Actuarial Examinations will meet in Room 3313, Internal Revenue Service Building, 1111 Constitution Avenue, NW, in Washington, DC on June 21 and 22, 1989, from 8:30 a.m. to 5:00 p.m. each day.

The purpose of the meeting is to discuss topics and questions which may be recommended for inclusion on future

Joint Board examinations in actuarial mathematics and methodology referred to in Title 29 U.S. Code, section 1242(a)(1)(B) and to review the May 1989 Joint Board examinations in order to make recommendations relative thereto, including the minimum acceptable pass score. A determination as required by section 10(d) of the Federal Advisory Committee Act (Pub. L. 92-463) has been made that the portions of the meeting dealing with the discussion of questions which may appear on the Joint Board's examinations and review of the May 1989 Joint Board examinations fall within the exceptions to the open meeting requirement set forth in Title 5 U.S. Code, section 552b.

In addition to the above, there will be discussion of the following: (1) Topics for inclusion on the examination program for the November 1989 pension law examination and May 1990 basic actuarial examination and (2) material (e.g., law, revenue rulings and notices) which may be included as part of the pension law examination booklets. The portion of the meeting dealing with the discussion of these topics will be open to the public as space is available. Such discussion will commence at 1:30 p.m. on June 21 and will continue for as long as necessary to complete the discussion, but not beyond 3:30 p.m.

Time permitting, after discussion of the program by Committee members, interested persons may make statements germane to this subject. Persons wishing to make oral statements are requested to notify the Committee Management Officer in writing prior to the meeting in order to aid in scheduling the time available, and should submit the written text, or, at a minimum, an outline of comments they propose to make orally. Such comments will be limited to ten minutes in length. Any interested person also may file a written statement for consideration by the Joint Board and Committee by sending it to the Committee Management Officer. Notifications and statements should be mailed no later than June 16, 1989 to Mr. Leslie S. Shapiro, Joint Board for the Enrollment of Actuaries, c/o U.S. Department of the Treasury, Washington, DC 20220.

Leslie S. Shapiro,
Advisory Committee Management Officer,
Joint Board for the Enrollment of Actuaries

Date: May 16, 1989.

[FR Doc. 89-12147 Filed 5-19-89; 8:45 am]

BILLING CODE 4810-25-M

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket No. 88-12]

**Donald Laken T/A Safe Pet, Inc.,
International Tracking Dog Service;
Grant of Registration**

On January 13, 1988, the Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration (DEA), issued an Order to Show Cause to Donald Laken T/A Safe Pet, Inc., International Tracking Dog Service, 101 Leverington Avenue, Philadelphia, Pennsylvania (Respondent), proposing to revoke its DEA Certificates of Registration PI0234269 and PD0234411 as a researcher. The Order to Show Cause alleged that Respondent's continued registration with DEA would be inconsistent with the public interest, as that term is defined in 21 U.S.C. 823(f).

Respondent, through counsel, requested a hearing regarding the issues raised in the Order to Show Cause and the matter was placed on the docket of Administrative Law Judge Francis L. Young. Following prehearing filings, a hearing was held in Philadelphia, Pennsylvania on September 22, 1988.

Judge Young issued his opinion and recommended ruling, findings of fact, conclusions of law and decision on February 17, 1989. The record was transmitted to the Administrator by the Administrative Law Judge on March 22, 1989. The Administrator, having considered the record in its entirety, hereby enters this final order pursuant to 21 CFR 1316.67.

The Administrative Law Judge found that Donald Laken has owned and operated a canine training business since 1971. The business specializes in training dogs in obedience, tracking, protection, arson investigation, drug and bomb detection. Respondent has been issued two DEA researcher registrations for the purpose of training dogs in drug detection.

The Government's witness in this proceeding had known Donald Laken since 1976, when they were in the canine training business together. During 1983 and 1984 this individual and his girlfriend resided on the second floor of Mr. Laken's house. The witness testified that he had manufactured methamphetamine on three to four occasions during this period on the third floor of Mr. Laken's residence, and that Mr. Laken was aware of this activity. The witness also testified that in April 1986 he and Mr. Laken drove to Canada and purchased five gallons of P2P, a chemical used to manufacture

methamphetamine which is listed as a Schedule II controlled substance. The witness further testified that Mr. Laken removed a small quantity of the P2P and left the remainder in a storage locker in Canada. The witness indicated that Mr. Laken used the small quantity of P2P in his dog training business and that the witness used the remaining quantity for the illegal manufacture of methamphetamine. The witness has been convicted on two occasions of felony violations relating to controlled substances, the latest being a July 1987 conviction for conspiracy to manufacture methamphetamine.

Mr. Laken testified at the hearing and confirmed that the witness and his girlfriend resided in his home in 1983 and 1984. Mr. Laken denied that he had any knowledge of the witnesses' activities regarding the manufacture of methamphetamine, and that it would have been impossible for the witness to operate such a laboratory in his house without the family being aware of such activity. Mr. Laken further testified that he was contacted by a dog security company in Canada who asked for his assistance in determining whether P2P could be disguised from dogs by use of food additives. He indicated that in April 1986 he did travel to Canada with the Government's witness and purchased 5 gallons of P2P, the minimum amount he was permitted to purchase. A small quantity was removed and used for dog training in Canada, the rest was placed in storage. Mr. Laken stated that he later learned that the P2P was missing from the storage locker, and that if the Government witness took it, he had stolen it.

Mr. Laken's adult daughter, who lived in the house during part of the time that the Government's witness stated that he was manufacturing methamphetamine, testified that she slept on the second floor and would have been aware of any activity on the third floor of the house. She indicated that there was no such unusual activity during the time that she lived in the house.

The Administrative Law Judge concluded that it would have been impossible for the Government's witness to have operated a clandestine laboratory on the third floor of Mr. Laken's house without the knowledge of the other occupants of the house. The Administrative Law Judge also found that the Government did not sustain its burden of proof in establishing that Mr. Laken wrongfully supplied the Government's witness with P2P, or that Mr. Laken was aware of any illegal activity by the Government's witness during the period from 1983 through 1986. The Administrative Law Judge

recommended that the DEA Certificates of Registration issued to Respondent not be revoked.

The Administrator adopts the opinion and recommended decision of the Administrative Law Judge in its entirety. The Administrator concludes that the Government did not meet its burden of proof in this matter. Accordingly, the Administrator of DEA, pursuant to the authority vested in him by 21 U.S.C. 823 and 824 and 28 CFR 0.100(b), hereby orders that DEA Certificates of Registration PI0234269 and PD0234411, not be revoked, and that any outstanding applications for renewal of those registrations be granted.

This order is effective May 22, 1989.

John C. Lawn,

Administrator,

Dated: May 15, 1989.

[FR Doc. 89-12112 Filed 5-19-89; 8:45 am]

BILLING CODE 4410-09-M

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

[Notice (89-39)]

**NASA Advisory Council (NAC), Space
and Applications Advisory Committee
(SSAAC); Meeting**

AGENCY: National Aeronautics and Space Administration.

ACTION: Notice of Meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, Pub. L. 92-463, as amended, the National Aeronautics and Space Administration announces a forthcoming meeting of the NASA Advisory Council, Space Science and Applications Advisory Committee.

DATES: June 7, 1989, 8:30 a.m. to 5 p.m., June 8, 1989, 8:30 a.m. to 5 p.m., and June 9, 1989, 8:30 a.m. to 3:30 p.m..

ADDRESSES: NASA Headquarters, Room 226A, 600 Independence Avenue SW., Washington, DC 20546.

FOR FURTHER INFORMATION CONTACT: Mr. Joseph K. Alexander, Code E, National Aeronautics and Space Administration, Washington, DC 20546 (202/453-1430).

SUPPLEMENTARY INFORMATION: The Space and Applications Advisory Committee consults with and advises the NASA Office of Space Science and Applications (OSSA) on long range plans for, work in progress on, and accomplishments of NASA's Space Science and Applications programs. The Committee will meet to review candidate projects for Fiscal Year 1991 New Starts and the Committee's role in

OSSA Program Planning. The Committee is chaired by Dr. Berrien Moore and is composed of 24 members. The meeting will be open to the public up to the capacity of the room (approximately 45 including Committee members). It is imperative that the meeting be held on these dates to accommodate the scheduling priorities of the key participants.

Type of Meeting: Open.

Agenda:

Wednesday, June 7

- 8:30 a.m.—Opening Remarks.
- 8:45 a.m.—Status of the Office of Space Science and Applications Program.
- 9:30 a.m.—SSAAC Role in Reviewing Fiscal Year 1991 New Starts.
- 10:30 a.m.—Fiscal Year 1991 New Start Candidates.
- 4 p.m.—Committee Discussion.
- 5 p.m.—Adjourn.

Thursday, June 8

- 8:30 a.m.—Committee Business.
- 8:45 a.m.—Fiscal Year 1991 New Start Candidates.
- 11:45 a.m.—Discipline Subcommittee Reports.
- 2:30 p.m.—Shuttle Manifest and Flight Rate Issues.
- 3:30 p.m.—Fiscal Year 1991 Research and Analysis Budget Issues.
- 4:00 p.m.—Information Systems Strategic Plan.
- 4:45 p.m.—New Additions to OSSA Mission Queue.
- 5 p.m.—Adjourn.

Friday, June 9

- 8:30 a.m.—Subgroup Writing Session.
- 10:30 a.m.—Follow-up on Center Science Assessment and NASA Advisory Council University Study Plans.
- 11:30 a.m.—Discussion on SSAAC Statements.
- 2 p.m.—Discussion with the Associate Administrator for Space Science and Applications.
- 3:30 p.m.—Adjourn.

May 15, 1989.

John W. Gaff,

*Advisory Committee Management Officer,
National Aeronautics and Space
Administration.*

[FR Doc. 89-12148 Filed 5-19-89; 8:45 am]

BILLING CODE 7510-01-M

NATIONAL CREDIT UNION ADMINISTRATION

Public Information Collection Requirement Submitted to OMB for Review

Date: May 15, 1989.

The National Credit Union Administration has submitted the following public information collection requirements to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submissions may be obtained by calling the NCUA Clearance Officer listed. Comments regarding information collections should be addressed to the OMB reviewer listed and to the NCUA Clearance Officer, NCUA, Administrative Officer, Room 7344, 1776 G Street, Washington, DC 20456.

National Credit Union Administration

OMB Number: New Collection

Form Number: NCUA(OT) 13600

Type of Review: Approval

Title: Mortgage Lending Survey

Description: This survey is to determine the policies and practices credit unions are using in their real estate lending.

Respondents: A sample of a relatively small credit unions and a sample of large credit union.

Estimated Number of Respondents: 388

Estimated Burden Hours per Response: 0.5 hours.

Frequency of Response: One time survey.

Estimated Total Reporting Burden: 194 hours

Clearance Officer: Wilmer A. Theard, (202) 682-9700, National Credit Union Administrative, Room 7344, 1776 G Street, Washington, DC 20456.

OMB Reviewer: Gary Waxman (202) 395-7340, Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503
Becky Baker,

Secretary of the NCUA Board.

[FR Doc. 89-12219 Filed 5-19-89; 8:45 am]

BILLING CODE 7535-01-M

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-293]

Boston Edison Co.; Withdrawal of Application for Amendment to Facility Operating License

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Boston Edison

Electric Company (the licensee) to withdraw its April 30, 1987 application for proposed amendment to Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station, located in Plymouth County, Massachusetts.

The proposed amendment would have revised the Emergency Core Cooling Systems surveillance requirements.

The Commission has previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on July 29, 1987 (52 FR 28371). However, by letter dated May 13, 1989, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated April 30, 1987, and the licensee's letter dated May 13, 1989, which withdrew the application for license amendment. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and the Plymouth Public Library, 11 North Street, Plymouth, Massachusetts 02360.

Dated at Rockville, Maryland, this 15th day of May, 1989.

For the Nuclear Regulatory Commission.

Daniel G. McDonald,

*Senior Project Manager, Project Directorate
I-3, Division of Reactor Projects, Office of
Nuclear Reactor Regulation.*

[FR Doc. 89-12162 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

Rochester Gas & Electric Corp.; R. E. Ginna Nuclear Power Plant; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-18 issued to Rochester Gas & Electric Corporation (the licensee), for operation of the R.E. Ginna Nuclear Power Plant located in Wayne County, New York.

Environmental Assessment

Identification of Proposed Action

The proposed amendment would modify the Technical Specification (TS) to reflect testing requirements for snubbers that ensure structural integrity of systems following seismic or other events initiating dynamic loads.

The proposed action is in accordance with the licensee's application for amendment dated July 24, 1987 and supplemented May 4, 1988, June 21, 1988,

September 16, 1988, February 16, 1989 and March 14, 1989.

The Need for the Proposed Action

The proposed change to the TS was submitted by the licensee to incorporate the requirements of Standard Technical Specifications (STS) for Snubbers (Generic Letter 84-13) into their plant specific Technical Specifications.

Environmental Impacts of the Proposed Action

The Commission has completed its evaluation of the proposed revision to the TS. The proposed revision increases testing requirements for snubbers that ensure structural integrity of systems following seismic or other events initiating dynamic loads. Issuance of the amendment would impose more indepth and additional testing of snubbers, thereby contributing to safety. The staff has reviewed the proposed revision and has concluded that the change does not adversely affect safety of operation, the proposed changes do not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite and there may be a decrease in the allowable individual or cumulative occupational radiation exposure due to a reduction in the number of hydraulic snubbers that require periodic maintenance. Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact not already considered in the NRC-approved Final Environmental Statement (FES) November 1973, as amended June 17, 1983.

With regard to potential non-radiological impacts, the proposed change to the TS involves systems located within the restricted areas as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed amendment not already considered in the NRC-approved FES November 1973, as amended June 17, 1983.

Alternative to the Proposed Action

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This

would not reduce environmental impacts of plant operation.

Alternative Use of Resources

This action does not involve conflicts regarding resources and in any event does not concern resources not considered in the FES November 1973, as amended June 17, 1983, for the R.E. Ginna Nuclear Power Plant.

Agencies and Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

Finding of No Significant Impact

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated July 24, 1987 and supplemented on May 4, 1988, June 21, 1988, and September 16, 1988, February 16, 1989 and March 14, 1989 which are available for public inspection at the Commission's Public Document Room, Gelman Building, Lower-Level 2120 L St., NW., Washington, DC and at the local public document room located in the Rochester Public Library, 115 South Avenue, Rochester, New York 14610.

Dated at Rockville, Maryland, this 16th day of May, 1989.

For the Nuclear Regulatory Commission.

Richard H. Wessman,

Director, Project Directorate I-3, Division of Reactor Projects I/II.

[FR Doc. 89-12161 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-255]

Consumers Power Co.; Withdrawal of Application for Amendment to Provisional Operating License

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Consumers Power Company (the licensee) to withdraw its November 19, 1984, application (as supplemented by letters dated November 21, 1985 and February 28, 1986) for proposed amendment to Provisional Operating License No. DPR-20 for the Palisades Plant, located in Van Buren County, Michigan.

The proposed amendment would have revised the Appendix A Technical Specifications (TS's) by adding

requirements for the Control Room Emergency Air Cleanup System. This application was in response to the Commission's Generic Letter 83-27, specifically, NUREG-0737 Item III.D.3.4 relating to Control Room Habitability Requirement.

The Commission has previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on March 27, 1985, (50 FR 12143). However, by letter dated January 24, 1989, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated November 19, 1984, and supplemented November 21, 1985, and February 28, 1986, and the licensee's letter dated January 24, 1989, which withdrew the application for license amendment. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and the Van Zoeren Library, Hope College, Holland, Michigan 49421.

Dated at Rockville, Maryland, this 12th day of May 1989.

For the Nuclear Regulatory Commission.

Albert W. De Agazio,

Project Manager, Project Directorate III-1, Division of Reactor Projects, Office of Nuclear Reactor Regulation.

[FR Doc. 89-12163 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-255]

Consumers Power Co.; Withdrawal of Application for Amendment to Provisional Operating License

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Consumers Power Company (the licensee) to withdraw its April 10, 1984, application as superseded by letter dated March 25, 1986, for proposed amendment to Provisional Operating License No. DPR-20 for the Palisades Plant, located in Van Buren County, Michigan.

The proposed amendment would have revised the Technical Specifications (TS's) concerning the operability of the electrical systems for the operation of plant components. The proposed amendment would have provide for (1) two 480 volt Class 1E buses which were installed to power new control room heating, ventilating, and air conditioning equipment, (2) new motor control centers (MCC's) which are powered from these buses, and (3) the redistribution of certain other existing MCC's to other 480 volt buses. Additionally, the proposed amendment would have changed the applicability of

Specification 3.7.2, and would have added two new limiting conditions for operation (LCO). Certain editorial corrections also would have been made.

The Commission has previously issued a Notice of Consideration of Issuance of Amendment published in the *Federal Register* on May 23, 1984 (49 FR 21828) and superseded on July 3, 1986 (51 FR 27281). However, by letter dated January 24, 1989, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated April 10, 1984 as superseded on March 25, 1986, and the licensee's letter dated January 24, 1989, which withdrew the application for license amendments. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and the Van Zoeren Library, Hope College, Holland, Michigan 49201.

Dated at Rockville, Maryland this 12th day of May 1989.

For the Nuclear Regulatory Commission,
Albert De Agazio,

*Project Manager, Project Directorate III-1,
Division of Reactor Projects III, IV, V &
Special Projects, Office of Nuclear Reactor
Regulation.*

[FR Doc. 89-12164 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-255]

Consumers Power Co.; Withdrawal of Application for Amendment to Provisional Operating License

The United States Nuclear Regulatory Commission (the Commission) has granted the request of Consumers Power Company (the licensee) to withdraw its April 30, 1982, application as supplemented by letter dated April 21, 1988, for proposed amendment to Provisional Operating License No. DPR-20 for the Palisades Plant, located in Van Buren County, Michigan.

The proposed amendment would have revised the Technical Specification by adding a new Limiting Condition for Operation which would require two operable primary coolant system vent paths and associated surveillance requirements.

The Commission has previously issued a Notice of Consideration of Issuance of Amendment published in the *Federal Register* on August 23, 1983 (48 FR 38399). However, by letter dated January 24, 1989, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for

amendment dated August 30, 1982 and supplemented April 21, 1988, and the licensee's letter dated January 24, 1989, which withdrew the application for license amendment. The above documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and the Van Zoeren Library, Hope College, Holland, Michigan 49201.

Dated at Rockville, Maryland, this 12th day of May, 1989.

For the Nuclear Regulatory Commission.

Albert W. De Agazio,

*Project Manager, Project Directorate III-1,
Division of Reactor Projects, III, IV, & Special
Projects, Office of Nuclear Reactor
Regulation.*

[FR Doc. 89-12165 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-245]

Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Unit No. 1); Revocation of Exemption

I.

Northeast Nuclear Energy Company (NNECO or the licensee) is the holder of Facility Operating License No. DPR-21, which authorizes the operation of the Millstone Nuclear Power Station, Unit No. 1, (the facility) at the steady-state power levels not in excess of 2011 megawatts thermal. The facility is a boiling water reactor (BWR) located at the licensee's site in New London County, Connecticut. The license provides, among other things, that it is subject to all rules, regulations and orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II.

10 CFR 50.49, "Environmental qualification of electric equipment important to safety for nuclear power plants," requires that the environmental qualification program at Millstone Unit No. 1 be completed at the end of the second refueling outage following March 31, 1983 (the second refueling outage ended December 23, 1985). The Commission issued a Memorandum and Order to the licensee regarding the deadline for environmental qualification of the remaining unqualified motor operators at Millstone Unit No. 1, dated November 20, 1985, that granted an extension of the schedule to no later than August 30, 1987. On June 9, 1987, the NRC granted an exemption to the environmental requirements for seven valve motor operators because it was determined that they were not

necessary to ensure that the required systems will function to mitigate a design basis event (June 18, 1987 52 FR 23219).

By letter dated March 2, 1989, the licensee forwarded Licensee Event Report (LER) 89-001 to document that further evaluation has shown that two valves (1-CU-2 and 1-CU-3) may be subject to a post-accident environment that would require qualification of the valves. In that LER, the licensee identified appropriate short-term corrective actions and committed to replace the valve operators with qualified motor operators during the next refueling outage (the reload 12/cycle 13 refueling outage started April 8, 1989). By letter dated April 17, 1989, the licensee supplied additional information on this issue.

III.

The NRC has reviewed the information submitted by the licensee and concludes that the basis upon which the exemption for the two valve operators was granted is no longer valid. The NRC finds the actions proposed by the licensee, both short-term (additional isolation signal on high drywell pressure and increased plant operator training) and long-term (replacement of valve operators with qualified operators) to be appropriate and timely. These actions will bring the two valves into compliance with 10 CFR 50.49. The licensee has stated that the basis for the other five valves covered by this exemption is still valid.

IV.

Accordingly, the Commission has determined that the specific exemption from 10 CFR 50.49 granted on June 8, 1987, for the motor operators for valves 1-CU-2 and 1-CU-3 is hereby revoked. This revocation is necessary for the protection of the public health and safety which is afforded by compliance with the requirements of 10 CFR 50.49. In addition, the qualification of valve operators 1-CU-2 and 1-CU-3 should be completed prior to the restart of Millstone Unit No. 1 from the current refueling outage.

This revocation of exemption is effective upon issuance.

For the Nuclear Regulatory Commission.

Steven A. Varga,

*Director, Division of Reactor Project I/II,
Office of Nuclear Reactor Regulation.*

Dated at Rockville, Maryland, this 16th day of May 1989.

[FR Doc. 89-12166 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-206]

Southern California Edison Co. et al.; Issuance of Amendment to Provisional Operating License

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 127 to Provisional Operating License No. DPR-13, issued to Southern California Edison Company and San Diego and Electric Company (the licensees), for operation of the San Onofre Nuclear Generating Station, Unit No. 1, located in San Diego, California. The amendment was effective as of the date of issuance.

The amendment provides for a reactor vessel thermal shield monitoring program and mid-cycle inspection until the thermal shield fasteners are repaired during the fuel cycle XI refueling and 10-year ASME Inservice Inspection.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter 1, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the *Federal Register* on March 2, 1989 (54 FR 8854). No request for a hearing or petition for leave to intervene were received. Subsequent to issuance of this notice, the licensees provided supplemental information by letters dated March 21 and 23 and May 3 and 8, 1989. These letters provided additional information and revised commitments encompassed by the original notice.

The Commission has prepared an Environmental Assessment related to this action and has concluded that an environmental impact statement need not be prepared because operation of the facility in accordance with this amendment will have no significant adverse effect on the quality of the human environment.

For further details with respect to the action see (1) the application for amendment dated February 17, 1989, as supplemented March 21 and 23 and May 3 and 8, 1989, (2) Amendment No. 127 to License No. DPR-13, (3) the Commission's related Safety Evaluation and (4) the Commission's Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, 2120 L Street NW., Washington, DC

20555, and at the General Library, University of California, P.O. Box 19557, Irvine, California 92713. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects—III, IV, V and Special Projects.

Dated at Rockville, Maryland, this 15 day of May, 1989.

For the Nuclear Regulatory Commission,

Charles M. Trammell,

Senior Project Manager, Project Directorate, Division of Reactor Projects III, IV, V and Special Projects, Office of Nuclear Reactor Regulation.

[FR Doc. 89-12167 Filed 5-19-89; 8:45 am]

BILLING CODE 7590-01-M

RAILROAD RETIREMENT BOARD**Agency Forms Submitted for OMB Review**

AGENCY: Railroad Retirement Board.

ACTION: In accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35), the Board has submitted the following proposal(s) for the collection of information to the Office of Management and Budget for review and approval.

Summary of Proposal(s):

- (1) *Collection title:* RRB Client Satisfaction Survey
- (2) *Form(s) submitted:* T-100
- (3) *OMB Number:* N.A.
- (4) *Expiration date of current OMB clearance:* N.A.
- (5) *Type of request:* New collection
- (6) *Frequency of response:* On occasion
- (7) *Respondents:* Individuals or households
- (8) *Estimated annual number of respondents:* 975
- (9) *Total annual responses:* 975
- (10) *Average time per response:* 2 hours
- (11) *Total annual reporting hours:* 195
- (12) *Collection description:* Annually, at least 170,000 members of the public have contact with the Railroad Retirement Board (RRB) by mail, telephone or in person, concerning benefits they have applied for, were denied, or are receiving under provisions of the Railroad Retirement Act. The collection will obtain information for determining the level of satisfaction with the service provided by the RRB to these individuals and to identify any areas where improvements in providing service could be made.

Additional Information or Comments: Copies of the proposed forms and supporting documents can be obtained from Ronald Ritter, the agency clearance officer (312-751-4692). Comments regarding the information collection should be addressed to Ronald Ritter, Railroad Retirement Board, 844 Rush Street, Chicago, Illinois 60611 and the OMB reviewer, Justin Kopca (202-395-7316), Office of Management and Budget, Room 3002, New Executive Office Building, Washington, DC 20503.

Ronald Ritter,

Acting Director of Information Resources Management.

[FR Doc. 89-12168 Filed 5-19-89; 8:45 am]

BILLING CODE 7905-01-M

SECURITIES AND EXCHANGE COMMISSION

[Rel. No. 34-26825; File No. SR-MSRB-89-3]

Self-Regulatory Organizations; Proposed Rule Change by the Municipal Securities Rulemaking Board; Relating to Arbitration

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78s(b)(1), notice is hereby given that on March 14, 1989, the Municipal Securities Rulemaking Board ("Board") filed with the Securities and Exchange Commission a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

(A) The Municipal Securities Rulemaking Board ("Board") is filing an amendment to Board rule G-35 on arbitration (hereafter referred to as "the proposed rule change"). The proposed rule change would require a dealer, within 20 days after receipt of an arbitration award against it, either to pay the award or, if the dealer is considering an appeal of the award, to deposit the amount of the award in an escrow account set up for this purpose by the dealer or provide to the prevailing party an irrevocable standby letter of credit for the amount of the award. The full text of the proposed rule change is available for inspection and copying at the Commission's Public Reference Room and at the offices of the Board.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

(a) Rule G-35, the Board's Arbitration Code, and rule G-17, on fair dealing, require dealers to pay arbitration awards promptly unless a timely motion to vacate the award has been made according to applicable law. The Board is concerned that a number of dealers do not pay arbitration awards until the very end of the appeal period even when they have no intention of bringing an appeal. It also is concerned about certain cases in which appeals have been filed solely for the purpose of delaying payment of awards. Such situations are inconsistent with the Board's statutory mandate to protect investors and undermine the goals of the Board's arbitration program: to provide a relatively quick and inexpensive means of resolving disputes involving municipal securities dealers.

The proposed rule change would require a dealer, within 20 days after receipt of an arbitration award against it, either to pay the award or, if the dealer is considering an appeal of the award, to deposit the amount of the award in an escrow account set up for this purpose by the dealer or provide to the prevailing party an irrevocable standby letter of credit for the amount of the award.

If the dealer chooses to escrow the amount of the award, the amount of the award would be deposited with the bank in an escrow account pursuant to an escrow agreement subject to instructions consistent with the requirements of the proposed rule change. If an appeal is not filed by the relevant state or federal law deadline, or is filed but later withdrawn by the dealer prior to the entry of a final court order on the appeal, the escrow agreement must provide that the deposited funds would be delivered by the escrow agent to the prevailing party. If a final court order is obtained, the escrow agreement must provide for the delivery of the deposited funds pursuant to the court order.

If a dealer chooses to provide a letter of credit for the amount of the award, the dealer must provide that the amount of the award will be distributed to the prevailing party by the letter of credit issuer under certain circumstances. The letter of credit must provide for payment upon certification by the prevailing party that the dealer has not paid the

amount of the award and (1) an appeal has not been filed by appeal date, or (2) an appeal was filed but later withdrawn by the dealer prior to the entry of a final court order, or (3) a final court order on the appeal has been entered in favor of the prevailing party. Any costs incurred in the escrow account or in the application for and issuance of the letter of credit would be borne by the dealer.

The Board believes that a dealer should pay an award promptly and the 20 day period in the proposed rule change is adequate to obtain the necessary amount of money or make escrow or letter of credit arrangements. An additional benefit of the proposed rule change would be that, if the prevailing party does not receive payment of the award or notice of deposit of the funds within the 20 day period, the prevailing party could contact the appropriate enforcement agency. The enforcement agency then could bring an immediate action against the dealer for failing to comply with the rule, rather than waiting for the statutory appeal period to expire.

(b) The Board has adopted the proposed rule change pursuant to sections 15B(2)(C) and 15B(b)(2)(D) of the Securities Exchange Act of 1934. Section 15B(b)(2)(C) requires in pertinent part that the Board's rules be designed.

to promote just and equitable principles of trade . . . to remove impediments to and perfect the mechanism of a free and open market in municipal securities, and, in general, to protect investors and the public interest . . .

Section 15B(b)(2)(D) states that the Board shall, if it deems appropriate

provide for the arbitration of claims, disputes, and controversies relating to transactions in municipal securities: Provided, however, That no person other than a municipal securities broker, municipal securities dealer, or person associated with such a municipal securities broker or municipal securities dealer may be compelled to submit to such arbitration except at his instance and in accordance with section 29 of this title.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Board does not believe that the proposed rule change will affect any burdens on competition in the municipal securities industry because the proposed rule change will be equally applicable to all participants in the industry.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Board solicited comments on the proposed rule change in an exposure

draft published in December 1988. The Board received seven comment letters and one oral comment on the exposure draft.

Three commentators generally supported adoption of the proposed rule change as published in the exposure draft. One commentator stated that it is unfair when respondents take the entire 90 day appeal period to pay an award even if they do not plan to appeal. One commentator noted that it had to seek assistance from the NASD to collect funds from another dealer that had failed to make payment of an arbitration award. Two of the commentators stated that the proposed rule change should apply to dealers involved in both customer and inter-dealer disputes. In addition, the Securities Industry Conference on Arbitration ("SICA") is considering adoption of a similar provision for inclusion in the Uniform Code of Arbitration.

Three commentators opposed the proposed rule change as published in the exposure draft. One commentator stated that the number of dealers that do not pay arbitration awards because they have ceased doing business or have filed for bankruptcy is probably minimal and, therefore, the proposed rule change is unnecessary. During the last year, one dealer's bankruptcy resulted in nonpayment of a number of arbitration awards to customers in Board arbitration proceedings even though the dealer had adequate funds to pay some of the awards when they were issued. Moreover, the Board believes that if a dealer goes bankrupt but has deposited the award amount in an escrow account or obtained a letter of credit on behalf of the prevailing party, the prevailing party will benefit. For example, if the arbitration award is deposited into an escrow account prior to 90 days before the filing of bankruptcy, this probably would be a legal transfer under the Bankruptcy Code and would not be attached by the bankruptcy trustee. Even if the funds deposited within 90 days of bankruptcy are attached by the bankruptcy trustee and considered a void transfer, these assets would have been preserved for the bankruptcy estate and be available for the claims of customers and general creditors. In addition, two commentators stated that the proposed rule change penalizes dealers wishing to exercise their rights to appeal adverse arbitration awards. The Board believes that the proposed rule change does not penalize a dealer's right to appeal; it only ensures that, if they do not appeal, or if they do appeal but the appeal is unsuccessful, the

amount of the award would be available to the prevailing party.

One commentator stated that the timeliness of award payments is rightfully handled by the courts where well-established law allows parties to effect collection or to protect themselves from dealers in bankruptcy. The Board believes that, pursuant to its goal to make arbitration a quick and inexpensive dispute resolution process, requiring prevailing parties to engage in time-consuming, expensive and often complicated court actions (particularly when parties are located in different states) to obtain payment of awards does not seem to be consistent with the public interest. Moreover, customers and dealers cannot go to court to obtain payment of arbitration awards until after the appeal has run. The Board believes that it should do whatever is possible to encourage dealers to pay arbitration awards promptly.

One commentator also stated that, if the Board adopted the proposed rule change, it should at least provide an exemption for large firms because there is no danger that a customer would not receive an award from such firms due to undercapitalization. Two commentators stated that the Board should consider alternatives to requiring cash to be deposited in an escrow account. One of these commentators proposed that a dealer be allowed to post a bond with the court in which the dealer is pursuing an appeal. This commentator reasoned that the use of a bond would conserve a dealer's capital until a final judgment was rendered, would ensure payment of the award upon judgment and would compel dealers to commence appeals promptly. The Board decided against allowing a dealer to post a bond as an alternative to escrowing the amount of the award. It has been advised by the Surety Association of America (an insurance industry membership association) that, while surety companies will provide such bonds, it may be difficult for the prevailing party to collect the award amount because the surety company is only a guarantor of payment and will not take on the obligation to pay without proof that the amount is owned as well as proof that the dealer is unable or unwilling to pay. The specific proof needed could vary from surety company to surety company. This information is consistent with various Board members' experiences with surety bonds. One commentator recommended that a dealer be allowed to satisfy the rule's requirement either with cash or an irrevocable letter of credit. This commentator stated that an irrevocable letter of credit would not

have as adverse an effect on a dealer's capital while providing the same protection to the prevailing party as a cash deposit. The Board determined to allow dealers to provide a letter of credit for the amount of an award. The Board reasoned that a letter of credit is a loan to the dealer and that the issuing bank will pay the award amount upon presentation of documents stipulated as necessary in the letter of credit.

Several commentators stated that 10 business days was not sufficient time to establish an escrow account. One commentator stated that it would incur additional administrative charges to comply with the requirement within 10 business days. Another commentator noted that it, along with other large firms with branch offices, would have difficulty processing such payment or notifying the prevailing party within two weeks and suggested that the Board extend the time period to 30 days. One commentator suggested that the time period should be extended to 20 business days to provide dealers sufficient time to review the award with outside counsel and senior management to determine whether an appeal is warranted. The Board determined that 20 calendar days would be sufficient time for a dealer to make a decision whether to pay the award or pursue an appeal and establish an escrow account or obtain a letter of credit.

While two commentators agreed that interest earned on an escrow account should be provided to the prevailing party, as proposed in the draft rule, the Board deleted the requirement for an interest-bearing escrow account. It was concerned about modifying the terms of arbitration awards; also, it believed that some might interpret the interest requirement as a penalty. The Board determined that the proposed rule change should ensure that prevailing parties receive the amount of the award. If arbitrators provided for post-award interest in their awards, however, such interest becomes part of the award amount and would have to be provided for in any escrow or letter of credit arrangement.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the *Federal Register* or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve such proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section. Copies of such filing also will be available for inspection and copying at the principal office of the above-mentioned self-regulatory organization. All submissions should refer to the file number in the caption above and should be submitted by June 12, 1989.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.

Jonathan G. Katz,
Secretary.

Dated: May 15, 1989.

[FR Doc. 89-12202 Filed 5-19-89; 8:45 am]

BILLING CODE 8010-01-M

[Rel. No. 34-26824; File No. SR-NASD-89-10]

Self-Regulatory Organizations; Proposed Rule Change by National Association of Securities Dealers, Inc., Relating to Members Handling of Customer Limit Orders

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78s(b)(1), notice is hereby given that March 16, 1989, the National Association of Securities Dealers, Inc. ("NASD") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the NASD. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Proposed new section 45 to Article III of the NASD Rules of Fair Practice would set forth the obligations of member firms that accept customer limit orders and continue their own market making activities in the security which is the subject of the limit order. The rule would also provide a model statement that the NASD deems to constitute adequate disclosure to customers of the fact that the firm may accept a limit order but not grant that order priority over its own market making activities.

II. Self-Regulatory Organization's Statement of the Purposes of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the NASD included statement concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The NASD has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

The purpose of the proposed rule change is to provide guidance for NASD member firms with respect to the handling of customer limit orders by a member firm which is conducting both market making and retail activities. In Notice to Members 85-12, dated February 15, 1985, the NASD set forth its views that, on accepting a customer limit order a member undertakes a fiduciary obligation and cannot trade for its own account at prices more favorable than the customer limit order absent an understanding by the customer as to the priorities which will govern the order. At the time it issued Notice to Members 85-12, the NASD contemplated an amendment to the Rule of Fair Practice which would codify this position. Due to the pendency of an appeal of an NASD disciplinary action involving this issue, however, the NASD did not proceed with such rule making. The Commission has now ruled in that disciplinary action and has affirmed to conclusion reached by the NASD. See *In the Matter of E.F. Hutton & Co.*, Exchange Act Release No. 25587 (July 6, 1988). The NASD Board has, therefore, determined that it is now appropriate to

provide guidance to NASD member firms as to the type of communication with customers which would satisfy the member firms' obligations with respect to the handling of customer limit orders. The proposed rule change requires that each member firm that accepts and holds an unexecuted customer limit order and which anticipates continuing to trade in the security which is the subject of that order for its own market maker account at prices equal to or better than the customer's limit price shall be required to provide to existing customers at the time the rule is adopted, and to each new customer upon the opening of an account, a written statement clearly disclosing the circumstances under which the firm accepts limit orders and the policies and procedures followed by the firm in handling those orders. The rule further provides the text of a model disclosure statement which the NASD deems to constitute adequate disclosure of the fact that a firm may accept a limit order but not grant that order priority over its own market making activities.

The NASD believes that the proposed rule change is consistent with the provisions of section 15A(b)(6) of the Act, which requires the rules of the Association to promote just and equitable principals of trade and in general to protect investors and the public interest, in that the rule is designed to ensure that customers will more readily understand the terms and conditions under which member firms will accept and execute transactions in the customers' accounts.

B. Self-Regulatory Organization's Statement on Burden on Competition

The NASD does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Securities Exchange Act of 1934, as amended.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of The Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the *Federal Register* or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii)

as to which the NASD consents, the Commission will:

A. By order approve such proposed rule change, or

B. Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, view, and arguments concerning for foregoing. Persons making submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 5th Street, NW., Washington, DC 20549. Copies of the submissions, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the NASD. All submissions should refer to the file number in the caption above and should be submitted by June 12, 1989.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority, 17 CFR 200.30-3(a)(12).

Dated: May 15, 1989.

Jonathan G. Katz,

Secretary.

[FR Doc. 89-12203 Filed 5-19-89; 8:45 am]

BILLING CODE 8010-01-M

[Release No. 34-26826; File No. SR-NASD-89-22]

Self-Regulatory Organizations; Notice of Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to Registration of NASDAQ Market Makers

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on May 4, 1989, the National Association of Securities Dealers, Inc. ("NASD") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the NASD. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The proposed rule change amends Part VI, section 1(d) of Schedule D to the NASD By-Laws to provide that a market maker in the National Association of Securities Dealers Automated Quotations ("NASDAQ") System may become registered in an issue included in the NASDAQ System on the day after the request to register in the System is entered by the market maker.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the NASD included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The NASD has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In connection with the amendments adopted last year to the Rules of Practice and Procedures for the NASD's Small Order Execution System ("SOES") and to Schedule D to the NASD By-Laws, making participation in SOES mandatory for all market makers in NASDAQ National Market System securities, section 1(d) of Part VI of Schedule D was amended to provide that registration of market makers in the NASDAQ System would become effective on the day the registration request is entered into the NASDAQ terminal. Prior to that time, registration as a NASDAQ market maker became effective on the second business day after the registration was entered. The elimination of the two-day delay was intended to facilitate the registration process, permit market makers to immediately begin issuing quotes, and ameliorate potential disruptions in the trading of NASDAQ securities. The provision for "same day" registration was also adopted in anticipation of an enhanced capability for on-line registration.

The NASD Board of Governors ("Board") has determined that on-line registration should not be pursued at this time. With the benefit of nearly one year's experience with mandatory

SOES, the Board has determined that the potential for disruption in trading NASDAQ securities due to registration delay is remote and that some delay is in fact desirable for the orderly functioning of the market. The Board believes that an on-line registration capability may make it easier for a firm with a customer order to enter the market on an intra-day basis, fill the order in inter-dealer trading and exit the system that same day. Inasmuch as such firms are not committed to making a market, they would suffer no economic consequences as a result of having to comply with the twenty-day reregistration penalty imposed upon withdrawal. The Board believes that a one-day delay would avoid these types of abusive situations and would not impose a real hardship on market makers.

The NASD believes that the proposed rule change is consistent with section 15A(b)(6) under the Act, which mandates that the rules of a national securities association be designed to promote just and equitable principles of trade and to remove impediments to and perfect the mechanism of a free and open market, because the proposed rule change will discourage the registration of market makers who do not have a bona fide intent and desire to make markets.

B. Self-Regulatory Organization's Statement on Burden on Competition

The NASD does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the *Federal Register* or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the NASD consents, the Commission will:

- By order such proposed rule change, or
- Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the NASD. All submissions should refer to the file number in the caption above and should be submitted by June 12, 1989.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority, 17 CFR 200.30-3(a)(12).

Jonathan G. Katz,
Secretary.

Dated: May 16, 1989.

[FR Doc. 89-12204 Filed 5-19-89; 8:45 am]

BILLING CODE 8010-01-M

Self-Regulatory Organizations; Applications for Unlisted Trading Privileges and of Opportunity for Hearing; Boston Stock Exchange, Inc.

May 12, 1989.

The above named national securities exchange has filed applications with the Securities and Exchange Commission pursuant to section 12(f)(1)(B) of the Securities Exchange Act of 1934 and Rule 12f-1 thereunder, for unlisted trading privileges in the following securities:

- Blackstone Target Team
Common Stock, \$.01 Par Value (File No. 7-4520)
- Freeport McMoran
\$1.875 Exch. Conv. Pfd., No Par Value (File No. 7-4521)
- Silicon Systems, Inc.
Common Stock, No Par Value (File No. 7-4522)
- Santa Fe Pacific Pipeline Partners, LP
Preferred Depositary Units (File No. 7-4523)
- Blockbuster Entertainment Corp.
Common Stock, \$.01 Par Value (File No. 7-4524)
- Citizens & Southern Corp.

Common Stock, \$2.50 Par Value (File No. 7-4525)
 Golden Valley Microwave Foods, Inc.
 Common Stock, \$.01 Par Value (File No. 7-4526)
 Gordon Jewelry Corp.
 Class A Common Stock, \$1.00 Par Value (File No. 7-4527)
 InterTan, Inc.
 Common Stock, \$1.00 Par Value (File No. 7-4528)
 Longview Fibre Co.
 Common Stock, \$7.50 Par Value (File No. 7-4529)
 Sovran Financial Corp.
 Common Stock, \$5.00 Par Value (File No. 7-4530)
 TCBY Enterprises, Inc.
 Common Stock, \$.10 Par Value (File No. 7-4531)
 Windmere Corp.
 Common Stock, \$.10 Par Value (File No. 7-4532)

These securities are listed and registered on one or more other national securities exchange and are reported in the consolidated transaction reporting system.

Interested persons are invited to submit on or before June 5, 1989, written data, views and arguments concerning the above-referenced applications. Persons desiring to make written comments should file three copies thereof with the Secretary of the Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Following this opportunity for hearing, the Commission will approve the applications if it finds, based upon all the information available to it, that the extensions of unlisted trading privileges pursuant to such applications are consistent with the maintenance of fair and orderly markets and the protection of investors.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.

Jonathan G. Katz,
 Secretary.

[FR Doc. 89-12124 Filed 5-19-89; 8:45 am]

BILLING CODE 8010-01-M

**Self-Regulatory Organizations;
 Applications for Unlisted Trading
 Privileges and of Opportunity for
 Hearing; Midwest Stock Exchange,
 Incorporated.**

May 15, 1989.

The above named national securities exchange has filed applications with the Securities and Exchange Commission pursuant to section 12(f)(1)(B) of the

Securities Exchange Act of 1934 and Rule 12f-1 thereunder, for unlisted trading privileges in the following securities:

NBB Bancorp
 Common Stock, \$.10 Par Value (File No. 7-4533)
 Shoney's Inc.
 Common Stock, \$1.00 Par Value (File No. 7-4534)
 Eljer Industries, Inc.
 Common Stock, \$1.00 Par Value (File No. 7-4535)
 Schwitzer, Inc.
 Common Stock, \$.10 Par Value (File No. 7-4536)
 Scotsman Industries, Inc.
 Common Stock, \$.10 Par Value (File No. 7-4537)
 Blockbuster Entertainment Corp.
 Common Stock, \$.10 Par Value (File No. 7-4538)
 Pacific Western Bancshares
 Common Stock, No Par Value (File No. 7-4539)
 Itel Corp.
 Common Stock, \$1.00 Par Value (File No. 7-4540)
 RJR Holdings Group, Inc.
 Cum. Exch. Pfd. Stock, \$.01 Par Value (File No. 7-4541)

These securities are listed and registered on one or more other national securities exchange and are reported in the consolidated transaction reporting system.

Interested persons are invited to submit on or before June 6, 1989, written data, views and arguments concerning the above-referenced applications. Persons desiring to make written comments should file three copies thereof with the Secretary of the Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Following this opportunity for hearing, the Commission will approve the applications if it finds, based upon all the information available to it, that the extensions of unlisted trading privileges pursuant to such applications are consistent with the maintenance of fair and orderly markets and the protection of investors.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.

Jonathan G. Katz,
 Secretary.

[FR Doc. 89-12125 Filed 5-19-89; 8:45 am]

BILLING CODE 8010-01-M

DEPARTMENT OF STATE

[Public Notice CM-8/1286]

**The U.S. Organization for the
 International Telegraph and Telephone
 Consultative Committee CCITT Study
 Group A; Meeting**

The Department of State announces that Study Group A of the U.S. Organization for the International Telegraph and Telephone Consultative Committee (CCITT) will meet on July 25, 1989 at 10:00 a.m. in Room 1105, Department of State, 2201 C Street, NW., Washington, DC.

Study Group A Deals with international telecommunications policy and services.

The purpose of the meeting will be to review the activities of the various CCITT Study Groups (I, II, III and IX); prepare U.S. contributions for upcoming Working Party/Study Group meetings; examine contributions from other sources, and review general procedures and working methods currently underway.

Members of the general public may attend the meeting and join in the discussion, subject to the instructions of the Chairman. Admittance of public members will be limited to the seating available. In that regard, entrance to the Department of State building is controlled and entry will be facilitated if arrangements are made in advance of the meeting. Prior to the meeting, persons who plan to attend should so advise the office of Mr. Earl S. Barbely, State Department, Washington, DC; telephone 647-5220. All attendees must use the C street entrance to the building.

Dated: May 10, 1989.

Earl S. Barbely,

Director, Office of Telecommunications and
 Information Standards; Chairman, U.S.
 CCITT National Committee.

[FR Doc. 89-12118 Filed 5-19-89; 8:45 am]

BILLING CODE 4710-07-M

[Public Notice CM-8/1285]

**The U.S. Organization for the
 International Telegraph and Telephone
 Consultative Committee (CCITT)
 National Committee; Meeting**

The Department of State announces that the National Committee for the U.S. Organization for the International Telegraph and Telephone Consultative Committee (CCITT), will meet on July 24, 1989 in the Loy Henderson Conference Room, Department of State, 2201 C Street, NW., Washington, DC. The meeting will begin at 10:00 a.m.

The National Committee assists in the resolution of administrative/procedural problems pertaining to U.S. CCITT activities; provides advice on matters of policy and positions in the preparation for CCITT Plenary Assemblies and meetings of the International Study Groups; provides advice and recommendations in regard to the work of the U.S. CCITT Study Groups; and recommends the disposition of proposed U.S. contributions to the international CCITT which are submitted to the Committee for consideration.

The purpose of the meeting is to: report on the results of the May-June ITU Plenipotentiary Conference, held in Nice, France, summarize results and look at issues raised over the course of the first series of Study Group meetings during the Plenary period, and review reports from National Committee and *ad hoc* groups for strategic planning and the Legal Panel.

Members of the general public may attend the meeting and join in the discussion, subject to the instructions of the Chairman. Admittance of public members will be limited to the seating available. In that regard, entrance to the Department of State building is controlled and entry will be facilitated if arrangements are made in advance of the meeting. Prior to the meeting, persons who plan to attend should so advise the office of Mr. Earl Barbely, State Department, Washington, DC.; telephone (202) 647-5220. All attendees must use the C entrance to the building.

Dated: May 10, 1989.

Earl S. Barbely,

Director, Office of Telecommunications and Information Standards; Chairman, U.S. CCITT National Committee.

[FR Doc. 89-12119 Filed 5-19-89; 8:45 a.m.]

BILLING CODE 4710-07-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

[CGD-89-042]

Meeting of the Subcommittee on Coal Transportation, Chemical Transportation Advisory Committee

AGENCY: Coast Guard, DOT.

ACTION: Notice of meeting.

SUMMARY: The Subcommittee on Coal Transportation of the Chemical Transportation Advisory Committee (CTAC) will hold a meeting on Wednesday, June 28, 1989 in Room 4436, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington DC—. The Subcommittee is

considering requirements for the safe transportation of coal in ships and barges. The meeting is scheduled to begin at 10:00 a.m. and end at 4:00 p.m. This meeting will be devoted to reviewing the Draft Recommendations of the Subcommittee.

Attendance is open to the public. Members of the public may present oral statements at the meeting. Persons wishing to present oral statements should notify the Executive Director of CTAC no later than the day before the meeting. Any member of the public may present a written statement to the subcommittee at any time.

FOR FURTHER INFORMATION CONTACT:

Mrs. D. Anderson or Mr. F. Wybenga, U.S. Coast Guard Headquarters (G-MTH-1), 2100 Second Street, SW., Washington, DC 20593, (202) 267-1217.

Dated: May 11, 1989.

J.D. Sipes,

Rear Admiral, U.S. Coast Guard Chief, Office of Marine Safety, Security and Environmental Protection.

[FR Doc. 89-12138 Filed 5-19-89; 8:45 am]

BILLING CODE 4910-14-M

DEPARTMENT OF THE TREASURY

Public Information Collection Requirements Submitted to OMB for Review

Date: May 16, 1989.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2224, 1500 Pennsylvania Avenue, NW., Washington, DC 20220.

Internal Revenue Service

OMB Number: 1545-0007.

Form Number: Form T.

Type of Review: 1545-0007.

Title: Forest Industries Schedules.

Description: Form T is used by any taxpayer who is claiming a deduction for the depletion of timber. The form shows the basis for the timber (cost plus any improvements) and amount of depletion taken for timber cut. The IRS uses Form T to determine if the depletion deduction is correctly computed.

Respondents: Farms, Businesses or other for-profit, Small businesses of organizations.

Estimated Number of Respondents: 37,000.

Estimated Burden Hours Per Response/Recordkeeping:

Recordkeeping, 38 hours, 1 minutes; Learning about the law or the form, 35 minutes; Preparing and sending the form to IRS, 1 hour, 15 minutes.

Frequency of Response: On occasion, Annually.

Estimated Total Recordkeeping/Reporting Burden: 1,474,820 hours.

Clearance Officer: Garrick Sher (202) 535-4297, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, NW., Washington, DC 20244.

OMB Reviewer: Milo Sunderhauf (202) 395-6880, Room 3001, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 89-12150 Filed 5-19-89; 8:45 am]

BILLING CODE 4810-25-M

Customs Service

[T. D. 89-59]

Special Bond Requirement for Semiautomatic Rifle Importation

The Customs Service has received instructions from the Assistant Secretary of the Treasury (Enforcement) that parties whose permits for the importation of certain semiautomatic rifles have been suspended until the Bureau of Alcohol, Tobacco, and Firearms (ATF) determines the admissibility of those semiautomatic rifles may obtain release of their merchandise upon the execution of a special bond. The amount of such bond shall be equal to the estimated duties on the firearms covered by the bond. If there are not estimated duties on the firearms, bond will be set in an amount equal to 5 percent of the value of the firearms. A condition of the bond shall be that the firearms remain in the custody of the person to whom the merchandise is conditionally released.

Privately printed copies of the special bond are acceptable so long as the information contained therein is the same as set forth below.

The text of the special bond follows:

Dated: May 12, 1989.

Harvey B. Fox,

Director, Office of Regulations and Rulings.

Restricted Semiautomatic Rifle Bond

____ (name of principal) of ____ and
____ (name of surety) of ____ are held

firmly bound unto the United States of America in the sum of _____ dollars (\$____), for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WITNESS our hands and seals this _____ day of _____, 19____.

WHEREAS, the principal desires to take possession of certain semiautomatic rifles that were imported under

Entry No. _____ on _____

(date)

before the Bureau of Alcohol, tobacco and Firearms, Department of the Treasury, determined their eligibility for admission into the commerce of the United States:

WHEREAS, the principal, notwithstanding the possession of a permit issued by the Bureau of Alcohol, Tobacco and Firearms, has been advised that the Bureau of Alcohol, Tobacco and Firearms has informed the U.S. Customs Service that all permits issued for certain semiautomatic rifles have been suspended and those rifles might not be eligible for admission in to the commerce of the United States.

Now, therefore, the condition of this obligation is such That—If the principal receives possession from the U.S. Customs Service of any semiautomatic rifle for which the Bureau of Alcohol, Tobacco and Firearms has suspended the permit, the principal agrees to retain possession and custody of each rifle so released until it receives written approval from the Customs Service for a further sale, transfer, or release of any such listed semiautomatic rifle.

If principal defaults on the condition of this obligation, the principal and surety agree to pay the amount of this obligation as liquidated damages.

Then this obligation to be void; otherwise to remain in full force and effect.

Signed, sealed, and delivered in the presence of—

Name	Address
Name	Address Principal (Seal)
Name	Address
Name	Address
Name	Address Surety (Seal)
Name	Address

[FR Doc. 89-12110 Filed 5-19-89; 8:45 am]
BILLING CODE 4620-02-M

UNITED STATES INFORMATION AGENCY

Radio Engineering Advisory Committee; Meeting

The Radio Engineering Advisory Committee of the United States Information Agency (USIA) will meet in Washington, DC, on Thursday, May 25, 1989, to discuss current operations and

future plans of the Voice of America (VOA). The meeting will be held at the Voice of America, 330 Independence Avenue, SW., Washington, DC 20547. The meeting will begin at 9 a.m. on May 25 and will continue through 4 p.m. Point of contact for the meeting is Valerie Sweeney, telephone (202) 485-6117.

This meeting will include reports from senior members of the VOA management and engineering staff on the progress being made on the overall VOA modernization and enhancement effort. Specific topics of discussion will include the procurement and testing of high frequency broadcasting antennas, the status of negotiations with other governments and major construction projects, and other technical and regulatory issues relating to VOA modernization.

This meeting will be closed to the public because issues relating to negotiations with other governments will be discussed throughout the meeting. This meeting will be closed because disclosure of the matters to be discussed is likely to divulge information that is: (A) Specifically authorized under criteria established by an Executive Order (12356) to be kept secret in the interest of national defense or foreign policy, and (B) in fact, is properly classified pursuant to such Executive Order (5 U.S.C. 552b(c)(1)).

Bruce S. Gelb,

Director.

Date: May 5, 1989.

[FR Doc. 89-12113 Filed 5-19-89; 8:45 am]

BILLING CODE 8230-01-M

DEPARTMENT OF VETERANS AFFAIRS

Special Medical Advisory Group; Availability of Annual Report

Under section 10(d) of Pub. L. 92-463 (Federal Advisory Committee Act) notice is hereby given that the Annual Report of the Department of Veterans Affairs' Special Medical Advisory Group for Fiscal Year 1988 has been issued. The report summarizes activities of the Group on matters relative to the care and treatment of disabled veterans, and other matters pertinent to the Department of Veterans Affairs' Veterans Health Services and Research Administration. It is available for public inspection at two locations:

Federal Documents Section, Exchange and Gift Division, LM 632, Library of Congress, Washington, DC 20540,

and,

Department of Veterans Affairs, Office of the Chief Medical Director, Room

811, 810 Vermont Avenue NW., Washington, DC 20420.

Dated: May 12, 1989.

By direction of the Secretary.

Rosa Maria Fontanez,
Committee Management Officer.

[FR Doc. 89-12145 Filed 5-19-89; 8:45 am]

BILLING CODE 8320-01-M

Information Collection Under OMB Review

AGENCY: Department of Veterans Affairs.

ACTION: Notice.

The Department of Veterans Affairs has submitted to OMB the following proposal for the collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35). This document lists the following information: (1) The agency responsible for sponsoring the information collection; (2) the title of the information collection; (3) the Department form number(s), if applicable; (4) a description of the need and its use; (5) frequency of the information collection, if applicable; (6) who will be required or asked to respond; (7) an estimate of the number of responses; (8) an estimate of the total number of hours needed to complete the information collection; and (9) an indication of whether section 3504(h) of Public Law 96-511 applies.

ADDRESSES: Copies of the proposed information collection and supporting documents may be obtained from John Turner, Veterans Benefits Administration, (203C), Department of Veterans Affairs, 810 Vermont Avenue, NW, Washington, DC 20420 (202) 233-2744.

Comments and questions about the items on the list should be directed to VA's OMB Desk Officer, Joseph Lackey, Office of Management and Budget, 726 Jackson Place, NW., Washington, DC 20503, (202) 395-7318.

DATES: Comments on the information collection should be directed to the OMB Desk Officer on or before June 21, 1989.

Dated: May 15, 1989.

By direction of the Secretary.

Frank E. Lalley,
Director, Office of Information Management and Statistics.

Extension

1. Veterans Benefits Administration
2. Request for verification of deposit
3. VA Form 26-8497a

4. Information collected is used by VA to determine whether the veteran qualifies as a prospective mortgagor for mortgage insurance or guaranty or

as a borrower for a rehabilitation loan under the VA program

5. On occasion

6. Business or other for-profit

7. 250,000 responses

8. 1/12 hour

9. Not applicable.

[FR Doc. 89-12146 Filed 5-19-89; 8:45 am]

BILLING CODE 8320-01-M

Sunshine Act Meetings

Federal Register

Vol. 54, No. 97

Monday, May 22, 1989

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

May 17, 1989.

TIME AND DATE: 2:00 p.m., Wednesday, May 24, 1989.

PLACE: Room 600, 1730 K Street, N.W., Washington, D.C.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following:

1. *Tracey and Partners, et al. v. Secretary of Labor*, Docket Nos. PENN 87-121-R, etc. (Issues include whether the judge erred in concluding that the operator did not violate Section 103(a) of the Mine Act. 30 U.S.C. 813(a).)

Any person intending to attend this meeting who requires special

accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR § 2706.150(a)(3) and § 2706.160(d).

CONTACT PERSON FOR MORE INFO: Jean Ellen (202) 653-5629/(202) 566-2673 for TDD Relay.

Jean H. Ellen,
Agenda Clerk.

[FR Doc. 89-12354 Filed 5-18-89; 3:33 pm]

BILLING CODE 6735-01-M

Corrections

Federal Register

Vol. 54, No. 97

Monday, May 22, 1989

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

THE PRESIDENT

3 CFR

Proclamation 5963 of April 28, 1989

Bicentennial Celebration of the Inauguration of George Washington

Correction

In Presidential Proclamation 5963 beginning on page 18863 in the issue of Tuesday, May 2, 1989, make the following correction:

The first sentence of the third paragraph should read, "Revered for his leadership during the Revolutionary War, Washington was elected to office by a unanimous vote in 1789."

The correction was requested by Ronald Geisler, Executive Clerk of the White House, in a memorandum to the

Director of the Federal Register, dated May 17, 1989.

BILLING CODE 1505-01-D

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 81

[FRL-3527-7; KY-050]

Designation of Areas for Air Quality Planning Purposes; Kentucky: Redefinition of Attainment Area From Rest of State to County-by-County

Correction

In rule document 89-4297 beginning on page 8322 in the issue of Tuesday, February 28, 1989, make the following corrections:

§ 81.318 [Corrected]

1. On page 8324, in the table, in the first column, in the first entry, "Bolye" should read "Boyle".
2. On the same page, in the table, in the same column, in the 43rd entry, remove the "D" after "County".
3. On the same page, in the table, in the second column, in place of the 10th broken line from the bottom, (corresponding with McCracken County), insert an "X".

4. On the same page, in the table, in the same column, remove the "X" that appears above the eighth broken line from the bottom (corresponding with "That portion of Madison County in Richmond").

BILLING CODE 1505-01-D

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 160

[OPP-250081; FRL-3565-1]

Notification to Secretary of Agriculture of the Final Revision to the Federal Insecticide, Fungicide, and Rodenticide Act; Good Laboratory Practice Standards

Correction

In proposed rule document 89-10404 appearing on page 18912 in the issue of Wednesday, May 3, 1989, make the following correction:

In the first column, under **SUPPLEMENTARY INFORMATION**, in the 13th line, before "Secretary's" insert "Secretary, and the response of the Administrator concerning the".

BILLING CODE 1505-01-D

Federal Register

Monday
May 22, 1989

Part II

Environmental Protection Agency

40 CFR Parts 141, 142 and 143
National Primary and Secondary
Drinking Water Regulations; Proposed
Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141, 142, and 143

[WH-FRL-3380-1]

National Primary and Secondary Drinking Water Regulations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In this notice, EPA is repropounding maximum contaminant level goals (MCLGs) and proposing National Primary Drinking Water Regulations (NPDWRs) for 30 synthetic organic chemicals (SOCs) and 8 inorganic chemicals (IOCs). The NPDWRs consist of maximum contaminant levels (MCLs) or treatment techniques for the SOCs and IOCs. The NPDWRs also include proposed monitoring, reporting, and public notification requirements for these compounds. This notice proposes the best available technology (BAT) upon which the MCLs are based and the BAT for the purpose of issuing variances. In addition to the NPDWRs for the SOCs and IOCs, the Agency is also proposing secondary MCLs (SMCLs) for nine contaminants. Monitoring requirements for approximately 100 synthetic organic chemicals and inorganic chemicals which are not regulated by NPDWRs are also proposed in this notice.

DATES: Written comments must be submitted by August 21, 1989. A public hearing will be held at EPA's Education Center auditorium, 401 M Street SW., Washington, DC 20460, on July 12, 1989 and, if needed, on July 13, 1989, beginning at 9:00 a.m. If additional time is needed to accommodate statements at the hearing, the hearing will be extended to July 13.

ADDRESSES: Send written comments on the proposed rule to SOCs/IOCs Comment Clerk, Criteria and Standards Division, Office of Drinking Water (WH-550D), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. Commenters are requested to submit any references cited in their written or oral comments. A copy of the comments and supporting documents are available for review at the EPA, Drinking Water Docket, 401 M Street SW., Washington, DC 20460. For access to the docket materials, call 202-382-3027 between 9:00 a.m. and 3:30 p.m. Anyone planning to attend the public hearing (especially those who plan to make statements) may register in advance by calling or writing the Office of Drinking Water at 202-382-7584, EPA.

WH-550-D, 401 M Street SW., Washington, DC 20460. Persons planning to make statements at the hearing should submit written copies of their remarks at the time of the hearing.

Copies of draft health criteria, analytical methods, and regulatory impact analysis documents are available at some Regional Offices listed below and for a fee from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 800/336-4700, local: 703/487-4650.

FOR FURTHER INFORMATION CONTACT: Al Havinga, Criteria and Standards Division, Office of Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, 202/382-5555, or one of the EPA Regional Office contacts listed below. General information may also be obtained from the EPA Drinking Water Hotline. The toll-free number is 800/426-4791, local: 202/382-5533.

EPA Regional Offices

- I. JFK Federal Bldg., Room 2203, Boston, MA 02203, Phone: (617) 565-3602, Jerry Healey
- II. 26 Federal Plaza, Room 824, New York, NY 10278, Phone: (212) 264-1800, Walter Andrews
- III. 841 Chestnut Street, Philadelphia, PA 19107, Phone: (215) 597-8227, Jon Capacasa
- IV. 345 Courtland Street, Atlanta, GA 30365, Phone: (404) 347-2913, Wesley Crum
- V. 230 S. Dearborn Street, Chicago, IL 60604, Phone: (312) 353-2152, Joseph Harrison
- VI. 1445 Ross Avenue, Dallas, TX 75202, Phone: (214) 255-7155, Oscar Cabra
- VII. 726 Minnesota Ave., Kansas City, KS 66101, Phone: (913) 234-2815, Ralph Langemeier
- VIII. One Denver Place, 999 18th Street, Suite 300, Denver, CO 80202-2413, Phone: (303) 293-1408, Patrick Crotty
- IX. 215 Fremont Street, San Francisco, CA 94105, Phone: (415) 974-0912, Steve Pardieck
- X. 1200 Sixth Avenue, Seattle, WA 98101, Phone: (206) 442-4092, Richard Thiel

SUPPLEMENTARY INFORMATION:

Abbreviations used in this notice.

BAT: Best Available Technology
BTGA: Best Technology Generally Available
CWS: Community Water System
DWEL: Drinking Water Equivalent Level
EMSL: EPA Environmental Monitoring and Support Laboratory (Cincinnati)
GAC: Granular Activated Carbon
IOC: Inorganic Chemical
LOQ: Limit of Quantitation
MCL: Maximum Contaminant Level (expressed as mg/l)¹

¹ 1,000 micrograms (ug) = 1 milligram (mg)

MCLG: Maximum Contaminant Level Goal
MDL: Method Detection Limit
MGD: Million Gallons per Day
NIPDWR: National Interim Primary Drinking Water Regulation
NPDWR: National Primary Drinking Water Regulation
NTNCWS: Non-transient Non-community Water System
POE: Point-of-Entry Technologies
POU: Point-of-Use Technologies
PQL: Practical Quantitation Level
PTA: Packed Tower Aeration
PWS: Public Water System
RIA: Regulatory Impact Analysis
RMCL: Recommended Maximum Contaminant Level
RSC: Relative Source Contribution
SDWA: Safe Drinking Water Act, or the "Act," as amended in 1986
SMCL: Secondary Maximum Contaminant Level
SOC: Synthetic Organic Chemical
VOC: Volatile Synthetic Organic Chemical

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I. Summary of Today's Action

Proposed MCLGs for inorganic chemicals:

(1) Asbestos.....	7 million fibers/ liter (longer than 10 μ)
(2) Barium	5 mg/1
(3) Cadmium	0.005 mg/1
(4) Chromium	0.1 mg/1
(5) Mercury	0.002 mg/1
(6) Nitrate ¹	10 mg/1 (as N)
(7) Nitrite ¹	1 mg/1 (as N)
(8) Selenium	0.05 mg/1

Proposed MCLGs for synthetic organic chemicals:

(1) Acrylamide	Zero
(2) Alachlor	Zero
(3) Aldicarb	0.01 mg/1
(4) Aldicarb sulfoxide	0.01 mg/1
(5) Aldicarb sulfone	0.04 mg/1
(6) Atrazine	0.003 mg/1
(7) Carbofuran	0.04 mg/1
(8) Chlordane	Zero
(9) o- Dibromochloro- propane (DBCP)	Zero
(10) o- Dichlorobenzene	0.6 mg/1
(11) cis-1,2- Dichloroethylene	0.07 mg/1
(12) trans-1,2- Dichloroethylene	0.1 mg/1
(13) 1,2- Dichloropropane	Zero
(14) 2,4-D	0.07 mg/1
(15) Epichlorohydrin	Zero
(16) Ethylbenzene	0.7 mg/1
(17) Ethylene dibromide (EDB)	Zero
(18) Heptachlor	Zero
(19) Heptachlor epoxide	Zero
(20) Lindane	0.0002 mg/1
(21) Methoxychlor	0.4 mg/1
(22) Monochloroben- zene	0.1 mg/1
(23) Polychlorinated biphenyls (PCBs) (as decachlorobi- phenyl)	Zero
(24) Pentachloro- phenol	0.2 mg/1
(25) Styrene	Zero/0.1 mg/1 ²
(26) Tetrachloroethy- lene	Zero
(27) Toluene	2 mg/1
(28) Toxaphene	Zero
(29) 2,4,5-TP (Silvex)	0.05 mg/1
(30) Xylenes (total) ..	10 mg/1

Proposed MCLs for inorganic chemicals:

(1) Asbestos.....	7 million fibers/ liter (longer than 10 μ)
(2) Barium	5 mg/1
(3) Cadmium	0.005 mg/1
(4) Chromium	0.1 mg/1
(5) Mercury	0.002 mg/1
(6) Nitrate ¹	10 mg/1 (as N)
(7) Nitrite ¹	1 mg/1 (as N)
(8) Selenium	0.05 mg/1

Proposed MCLs for synthetic organic chemicals:

(1) Acrylamide	Treatment technique
(2) Alachlor	0.002 mg/1
(3) Aldicarb	0.01 mg/1
(4) Aldicarb sulfoxide	0.01 mg/1
(5) Aldicarb sulfone	0.04 mg/1
(6) Atrazine	0.003 mg/1
(7) Carbofuran	0.04 mg/1
(8) Chlordane	0.002 mg/1
(9) Dibromochloro- propane (DBCP)	0.0002 mg/1
(10) o- Dichlorobenzene	0.6 mg/1
(11) cis-1,2- Dichloroethylene	0.07 mg/1
(12) trans-1,2- Dichloroethylene	0.1 mg/1
(13) 1,2- Dichloropropane	0.005 mg/1
(14) 2,4-D	0.07 mg/1
(15) Epichlorohydrin	Treatment technique
(16) Ethylbenzene	0.7 mg/1
(17) Ethylene dibromide (EDB)	0.00005 mg/1
(18) Heptachlor	0.0004 mg/1
(19) Heptachlor epoxide	0.0002 mg/1
(20) Lindane	0.0002 mg/1
(21) Methoxychlor	0.4 mg/1
(22) Monochloroben- zene	0.1 mg/1
(23) Polychlorinated biphenyls (PCBs) (as decachlorobi- phenyl)	0.0005 mg/1
(24) Pentachloro- phenol	0.2 mg/1
(25) Styrene	0.005 mg/1/0.1 mg/1 ²
(26) Tetrachloroethy- lene	0.005 mg/1
(27) Toluene	2 mg/1
(28) Toxaphene	0.005 mg/1
(29) 2,4,5-TP (Silvex)	0.05 mg/1
(30) Xylenes (total) ..	10 mg/1

¹ In addition, MCLG for total nitrate and nitrite = 10 mg/1 (as N).

² EPA proposes MCLGs of 0.1 mg/1 based on a Group C carcinogen classification and zero based on a B₂ classification.

¹ In addition, MCL for total nitrate and nitrite = 10.0 mg/1 (as N).

² EPA proposes MCLs of 0.1 mg/1 based on a Group C carcinogen classification and .005 mg/1 based on a B₂ classification.

Proposed SMCLs:

(1) Aluminum	0.05 mg/1
(2) o-Dichlorobenzene	0.01 mg/1
(3) p-Dichlorobenzene	0.005 mg/1
(4) Ethylbenzene	0.03 mg/1
(5) Pentachlorophenol	0.03 mg/1
(6) Silver	0.09 mg/1
(7) Styrene	0.01 mg/1
(8) Toluene	0.04 mg/1
(9) Xylene	0.02 mg/1

Proposed BAT for IOCs:

Asbestos.....	Coagulation/Filtration; Direct & Diatomite Fil- tration; Corrosion Con- trol.
Barium	Ion Exchange; Lime Soft- ening; Reverse Osmosis.
Cadmium	Ion Exchange; Reverse Os- mosis; Coagulation/Fil- tration; Lime Softening.
Chromium	Coagulation/Filtration; Ion Exchange; Lime Soften- ing (Chromium III only); Reverse Osmosis.
Mercury	Granular Activated Carbon; Coagulation/ Filtration ¹ ; Powdered Activated Carbon ¹ ; Lime Softening ¹ ; Re- verse Osmosis ¹ .
Nitrate/ Nitrite	Ion Exchange; Reverse Os- mosis.
Selenium	Activated Alumina; Lime Softening; Coagulation/ Filtration (Selenium IV only); Reverse Osmosis.

¹ Mercury influent concentrations <10 ug/1.

Proposed BAT for SOC:

Chemical	GAC ¹	PTA ²	PAP ³
Acrylamide.....			X
Alachlor	X		
Aldicarb	X		
Aldicarb sulfone	X		
Aldicarb sulfoxide	X		
Atrazine	X		
Carbofuran	X		
Chlordane	X		
2,4-D	X		
Dibromochloropropane (DBCP)	X	X	
o-Dichlorobenzene	X	X	
cis-1,2-Dichloroethylene	X	X	
trans-1,2- Dichloroethylene	X	X	
1,2-Dichloropropane	X	X	
Epichlorohydrin			X
Ethylene Dibromide (EDB)	X	X	
Ethylbenzene	X	X	
Heptachlor	X		
Heptachlor epoxide	X		
Lindane	X		
Methoxychlor	X		
Monochlorobenzene	X	X	
PCBs	X		
Pentachlorophenol	X		
Styrene	X	X	
2,4,5-TP (Silvex)	X		
Tetrachloroethylene	X	X	
Toluene	X	X	
Toxaphene	X		
Xylene (Total)	X	X	

¹ GAC=Granular Activated Carbon.² PTA=Packed Tower Aeration.³ PAP=Polymer Addition Practices.

PROPOSED COMPLIANCE MONITORING REQUIREMENTS

[Community and Non-Transient Systems]

Contaminant	Vulnerability assessment required	Non-vulnerable		Vulnerable ¹	
		Surface	Ground	Surface	Ground
I. Regulated contaminants:					
Inorganics					
Barium	Yes	Initial: Annually	Initial: Every 3 years	Not applicable	Not applicable
Cadmium	No	Repeat: Minimum of every 10 years after 3 rounds completed.	Repeat: Minimum of every 10 years after 3 rounds completed.		
Chromium	No				
Mercury	No				
Selenium	No				
Asbestos	Yes, to determine repeat monitoring.	No monitoring required.	No monitoring required.	Initial: 1 time	Initial: 1 time
Nitrate/Nitrite ²	No	Quarterly (Reduced to annually if concentration is <50% of MCL).	Annually (Quarterly if concentration >50% of MCL).	Repeat: Every 3 years if initial result is >50% of MCL.	Repeat: Annually if initial result is >50% of MCL.
Synthetic Organics:					
(a) VOCs					
cis-1,2-Dichloro-ethylene	Yes, for repeat frequency.	Initial: Quarterly for 1 year. Repeat: State discretion.	Initial: Quarterly for 1 year. Repeat: 5 years	Initial: Quarterly for 1 year.	Initial: Quarterly for 1 year.
trans-1,2-Dichloro-ethylene				Repeat: VOCs detected—Quarterly.	Repeat: VOCs detected—Quarterly.
1,2-Dichloropropane				VOCs not detected—	VOCs not detected—
o-Dichlorobenzene				>500 connections—	>500 connections—
Ethylbenzene				every 3 years.	every 3 years.
Monochlorobenzene				<500 connections—	<500 connections—
Styrene				every 5 years.	every 5 years.
Tetrachloroethylene					
Toluene					
Xylene					
(b) Pesticides and PCBs					
Alachlor	Yes, for initial sampling.	No monitoring required.	No monitoring required.	Initial: Quarterly for 1 year.	Initial: Quarterly for 1 year.
Aldicarb				Repeat: Detected—	Repeat: Detected—
Aldicarb sulfone				>500 connections—	>500 connections—
Aldicarb sulfoxide				quarterly.	quarterly.
Atrazine				<500 connections—	<500 connections—
Carbofuran				Annually.	Annually.
Chlordane				Not detected—	Not detected—
Dibromochloropropane 2,4-D				>500 connections—4	>500 connections—4
Ethylene dibromide				quarterly samples	quarterly samples
Heptachlor				every 3 years.	every 3 years.
Heptachlor epoxide				<500 connections—4	<500 connections—4
Lindane				quarterly samples	quarterly samples
Methoxychlor				every 5 years.	every 5 years.
Pentachlorophenol					
Toxaphene 2,4,5-TP					
PCBs					
II. Unregulated contaminants:					
6 IOCs	Yes	No requirement	No requirement	1 time only	1 time only
23 SOCs	Yes	No requirement	No requirement	4 quarterly samples for 1 year.	4 quarterly samples for 1 year.
82 SOCs	No	No requirement	No requirement	State discretion	State discretion

Note: This chart is a summary of the proposed monitoring requirements. The reader should consult the proposed rule for a full description of those requirements.

¹ Based upon assessment.² Non-community groundwater systems are required to monitor every three years; non-community surface water systems are required to monitor annually.

Analytical methods for inorganic chemicals:

Contaminant and methodology:
Asbestos: Transmission electron microscopyBarium:
Atomic absorption; furnace technique ¹

Atomic absorption; direct aspiration²
Inductively-coupled plasma³
Cadmium:
Atomic absorption; furnace technique¹
Inductively-coupled plasma³
Chromium:
Atomic absorption; furnace technique¹
Atomic absorption; direct aspiration²
Inductively-coupled plasma³
Mercury:
Manual cold vapor technique
Automated cold vapor technique
Nitrate:
Manual cadmium reduction
Automated hydrazine reduction
Automated cadmium reduction
Ion selective electrode
Ion chromatography
Nitrite:
Spectrophotometric
Automated cadmium reduction
Manual cadmium reduction
Ion chromatography
Selenium:
Atomic absorption; gaseous hydride
Atomic absorption; furnace¹

¹ Graphite Furnace Atomic Absorption Spectroscopy (GFAA).

² Direct Aspiration Atomic Absorption Spectroscopy (AA).

³ Inductively Coupled Plasma—Atomic Emission Spectroscopy (ICP—AES).

Analytical Methods for Volatile Organic Chemicals

1. EPA Methods 502.1; 502.2; 503.1; 524.1, and 524.2 are currently used to analyze the 8 VOCs promulgated on July 8, 1987.

Analytical Methods for Pesticides and PCBs

1. EPA Method 504: Dibromochloropropane; Ethylene Dibromide.
2. EPA Method 505: Alachlor, Atrazine, Chlordane, Heptachlor, Heptachlor Epoxide, Lindane, Methoxychlor, Toxaphene, and PCBs (as Aroclors). Method 505 can be used to screen for PCBs.
3. EPA Method 507: Alachlor, Atrazine.
4. EPA Method 508: Chlordane, Heptachlor, Heptachlor Epoxide; Lindane; Methoxychlor. Method 508 can be used to screen for PCBs.
5. EPA Method 508A: PCBs (as decachlorobiphenyl).
6. EPA Method 515.1: 2,4-D; 2,4,5-TP (Silvex); Pentachlorophenol.
7. EPA Method 531.1: Aldicarb; Aldicarb sulfone; Aldicarb sulfoxide; Carbofuran.

Laboratory Certification Criteria

- IOCs

Asbestos..... 2 standard deviations based on study statistics
Barium $\pm 15\%$ at ≥ 0.15 mg/L
Cadmium $\pm 20\%$ at ≥ 0.002 mg/L
Chromium $\pm 15\%$ at ≥ 0.01 mg/L
Fluoride $\pm 10\%$ at 1 to 10 mg/L
Mercury $\pm 30\%$ at ≥ 0.0005 mg/L
Nitrate $\pm 10\%$ at ≥ 0.4 mg/L
Nitrite $\pm 10\%$ at ≥ 0.4 mg/L
Selenium $\pm 20\%$ at ≥ 0.01 mg/L

• VOCs

± 20 percent ≥ 0.010 mg/l
 ± 40 percent ≥ 0.010 mg/l

• Pesticides and PCBs:

Two standard deviations based on study statistics.

Variances and Exemptions

Under section 1415, EPA or a State which has primary enforcement responsibility may issue a variance if it determines that a system cannot comply with an MCL despite application of BAT. The proposed section 1415 BAT for IOCs are the same technologies as those listed above for section 1412 BAT, except coagulation/filtration and lime softening are not proposed for small systems. Proposed BAT for the SOC's are the same technologies as the BAT listed above.

EPA or a State may not issue a variance or exemption if an unreasonable risk to health exists. Before granting a variance or exemption, EPA or the State must require public water systems to provide point-of-use (POU) devices, bottled water or other means to reduce exposure below unreasonable risk to health values.

State Primacy, Recordkeeping, Reporting Requirements

- State Primacy Requirements
 - State procedures for conducting vulnerability assessments
 - State procedures for determining whether a system may reduce monitoring frequencies
- State Recordkeeping Requirements
 - System vulnerability assessment determinations
 - Determinations that a system may reduce monitoring frequency
 - Determinations relating to repeat monitoring for asbestos
 - Records of decisions that systems must monitor for the unregulated contaminants
 - Letters from systems with less than 150 service connections stating their availability for monitoring for unregulated contaminants
 - Annual system certifications for epichlorohydrin and acrylamide
- State Reporting Requirements

- A list of systems for which the State conducted a vulnerability assessment
- A list of systems for which the State reduced monitoring frequencies
- Analytical results of unregulated contaminant monitoring
- A list of systems with less than 150 service connections which sent letters to the State stating their availability for monitoring for unregulated contaminants
- A list of systems which certified compliance with the treatment technique requirement for epichlorohydrin and acrylamide

II. Statutory Authority

Section 1412 of the Safe Drinking Water Act, as amended in 1986 ("SDWA" or "the Act"), requires EPA to publish Maximum Contaminant Level Goals (MCLGs) and promulgate National Primary Drinking Water Regulations (NPDWRs) for contaminants in drinking water which may cause any adverse effect on the health of persons and which are known or anticipated to occur in public water systems. Under section 1401, the NPDWRs are to include Maximum Contaminant Levels (MCLs) and "criteria and procedures to assure a supply of drinking water which dependably complies" with such MCLs. Under section 1412(b)(7)(A), if it is not economically or technically feasible to ascertain the level of a contaminant in drinking water, EPA may require the use of a treatment technique instead of an MCL.

Under section 1412(b), EPA is to establish MCLGs and promulgate national primary drinking water regulations for 83 contaminants by June 19, 1989 (see Appendix A for a list of the 83 contaminants). Regulations were to be promulgated by June 19, 1987 for 9 contaminants, by June 19, 1988 for 40 additional contaminants and by June 19, 1989 for the remaining 34 contaminants. An additional 25 contaminants are to be regulated every 3 years.

A. MCLGs, MCLs and BAT

EPA is to establish MCLGs at the level at which no known or anticipated adverse effects on the health of persons occur and which allow an adequate margin of safety. MCLGs are nonenforceable health goals. MCLs are enforceable standards which the Act directs EPA to set as close to the MCLGs as feasible. "Feasible" means feasible with the use of the best technology, treatment techniques, and other means which the Administrator finds available (taking cost into consideration) after examination for

efficacy under field conditions and not solely under laboratory conditions. Also, the SDWA requires the Agency to identify the best available technology (BAT) which is feasible for meeting the MCL for each contaminant.

B. Variances and Exemptions

Section 1415 authorizes the State (the term "State" is used in this preamble to mean the State agency with primary enforcement responsibility for the public water supply system program or EPA if the State does not have primacy) to issue variances from NPDWRs. The State may issue a variance if it determines that a system cannot comply with an MCL despite application of the best available technology (BAT). Under section 1415, EPA must propose and promulgate its finding of the best available technology, treatment techniques, or other means available for each contaminant, for purposes of section 1415 variances, at the same time that it proposes and promulgates a maximum contaminant level for such contaminant. EPA's finding of BAT, treatment techniques, or other means for purposes of issuing variances may vary among systems, depending upon the number of persons served by the system or for other physical conditions related to engineering feasibility and costs of complying with MCLs, as considered appropriate by EPA. The State may not issue a variance where an unreasonable risk to health exists. When a State grants a variance, it must at the same time prescribe a schedule for compliance with the NPDWR and implementation of any additional control measures.

Under section 1416(a), the State may exempt a public water system from any MCL or treatment technique requirement if it finds that: (1) Due to compelling factors (which may include economic factors), the system is unable to comply, (2) the system was in operation on the effective date of the MCL or treatment technique, or, for a newer system, that no reasonable alternative source of drinking water is available to that system, and (3) the exemption will not result in an unreasonable risk to health. Under section 1416(b), at the same time it grants an exemption the State is to prescribe a compliance schedule and a schedule for implementation of any required interim control measures. For exemptions resulting from a NPDWR promulgated after June 19, 1986, the system's final compliance date must be within 12 months of issuance of the exemption. However, the State may extend the final compliance date for up to three years if the public water system

shows that capital improvements to meet the MCL or treatment technique requirement cannot be completed within the exemption period and if the system needs financial assistance for the improvements, it has an agreement to obtain this assistance or the system has an enforceable agreement to become part of a regional public water system. For systems that have 500 or fewer service connections that need financial assistance to comply with the MCLs, the State may renew the exemption for additional two-year periods if the system is taking all practicable steps to comply.

C. Primacy

As indicated above, States, territories, and Indian Tribes may assume primary enforcement responsibility (primacy) for public water systems under Section 1413 of the SDWA. To date, 54 States and territories have primacy. To assume or retain primacy, States, territories, or Indian Tribes need not adopt the MCLs but must adopt, among other things, NPDWRs (i.e., MCLs, monitoring, analytical, and reporting requirements) that are no less stringent than those EPA promulgates.

D. Monitoring, Quality Control, and Records

Under section 1401(1)(D) of the Act, NPDWRs are to contain "criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including quality control and testing procedures to insure compliance with such levels * * *." In addition, section 1445 states that, "every person who is a supplier of water * * * shall establish and maintain such records, make such reports, conduct such monitoring and provide such information as the Administrator may reasonably require by regulation to assist him in establishing regulations, * * * in evaluating the health risks of unregulated contaminants or in advising the public of such risks." Section 1445 also requires EPA to promulgate regulations requiring every public water system to conduct a monitoring program for contaminants for which there is not an associated MCLG and MCL (i.e., unregulated contaminants).

E. Public Water Systems

Public water systems are defined in section 1401 of the Act as those systems which provide piped water for human consumption and have at least 15 connections or regularly serve at least 25 people. By regulation EPA has divided public water systems into

community; non-transient, non-community; and non-community water systems. Community water systems serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents (40 CFR 141.2). Non-transient, non-community water systems regularly serve at least 25 of the same people over six months of the year. Schools and factories which serve water to 25 or more of the same people for six or more months of the year are non-transient, non-community water systems. Transient non-community systems, by definition, are all other water systems. Transient non-community systems may include, for example, restaurants, gas stations, campgrounds and churches, among others.

F. Public Notification

Section 1414(c) of the Act requires the owner or operator of a public water system which does not comply with an applicable maximum contaminant level or treatment technique, testing procedure, or section 1445(a) (unregulated contaminant) monitoring requirements to give notice to the persons served by the system. Notice must be given if a variance or exemption is in effect or the system fails to comply with a compliance schedule resulting from a variance or exemption. Section 1445(a)(5) also requires public water systems to notify consumers and the EPA of the availability of the analytical results of the monitoring for unregulated contaminants. EPA's public notification regulations are codified at 40 CFR 141.32. Those regulations were amended by EPA on October 28, 1987 (52 FR 41534).

G. Secondary MCLs (SMCLs)

Section 1412(c) of the SDWA also authorizes EPA to promulgate National Secondary Drinking Water Regulations (NSDWRs). A NSDWR is defined in section 1401(2) as "a regulation which applies to public water systems and which specifies the maximum contaminant levels which, in the judgment of the Administrator, are requisite to protect the public welfare." The NSDWR "may apply to any contaminant in drinking water which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of persons served by the public water systems providing such water to discontinue its use, or which may otherwise adversely affect the public welfare." NSDWRs are not federally enforceable but instead offer additional guidance to water systems and States

based upon odor, aesthetics, and appearance. Secondary Maximum Contaminant Levels (SMCLs) were established in 1979 for 12 contaminants (44 FR 42196, July 19, 1979) and in 1986 for fluoride (51 FR 11396, April 2, 1986).

III. Establishing MCLGs

A. Background

In the 1986 Amendments to the Safe Drinking Water Act, Congress revised the Act to require that MCLGs and MCLs be proposed and promulgated simultaneously (SDWA Section 1412(a)(3)). This change streamlined development of drinking water standards by combining two steps in the regulation development process. Section 1412(a)(2) renamed Recommended Maximum Contaminant Levels (RMCLs) as Maximum Contaminant Level Goals (MCLGs).

To ensure compliance with the provision that MCLGs and MCLs be proposed and promulgated simultaneously and to ensure that adequate opportunity exists for public comment on these proposed standards, EPA is reproposing as MCLGs most of the RMCLs proposed in the November 1985 Federal Register Notice. In addition, MCLGs for several substances not listed in the November 1985 notice are also proposed.

Most of the MCLGs are being repropounded at essentially the same level as proposed in November 1985. However, the MCLGs for four contaminants are lower and four are higher than previously proposed. Two MCLGs are proposed for the first time. Where EPA is proposing MCLGs which differ from the previously proposed RMCLs, the changes result from public comments and/or additional data developed since the November, 1985 proposal. In these cases, the technical basis for these changes are explained in the discussion of the relevant contaminants.

Section 1412(b)(1) of the SDWA directs EPA to publish MCLGs and promulgate NPDWRs for nine contaminants by June 19, 1987 and 40 additional contaminants by June 19, 1988. The Agency published MCLGs and promulgated NPDWRs for eight VOCs and fluoride by June 19, 1987 (see 52 FR 25690, 51 FR 11396 and 50 FR 47142). This notice proposes MCLGs and NPDWRs for 38 additional compounds. Lead and copper MCLGs and NPDWRs, also proposed in November 1985, were repropounded for public comment in August, 1988 (53 FR 31516, August 18, 1988). The Agency also proposed rules for Filtration and Disinfection of Surface Water and Total Coliforms, on

November 3, 1987 (53 FR 42178 and 42224, respectively).

B. Procedure for Setting MCLGs

A detailed discussion of how EPA sets MCLGs is found in the November, 1985 proposal (50 FR 46944-46949). In summary, EPA uses a three category approach to set MCLGs (see Table 1). For those chemicals in Category I (strong evidence of carcinogenicity), EPA sets the MCLGs at zero. MCLGs for Category II chemicals (equivocal evidence of carcinogenicity) are set based upon non-carcinogenic data [the Drinking Water Equivalent Level (DWEL)] (see below). The DWEL is divided by an additional uncertainty factor to account for the potential carcinogenic risk. Alternatively the MCLG for a contaminant in Category II may be based upon lifetime carcinogenic risk calculations if a DWEL is not available. MCLGs for Category III chemicals (inadequate or no evidence of carcinogenicity) are set based upon the DWEL.

Table 1.—Three Category Approach to Set MCLGs

Category I:
Strong evidence of carcinogenicity
• EPA Group A or Group B
Category II:
Equivocal evidence of carcinogenicity
• EPA Group C
Category III:
Inadequate or no evidence of carcinogenicity
• EPA Group D or Group E

1. Setting MCLGs for Category I Contaminants

Because there is no demonstrated threshold for carcinogenic health effects, EPA sets MCLGs for known (EPA group A) and probable (EPA group B) human carcinogens at zero. EPA has received a request from Multinational Business Services, Inc. ("MBS") to reconsider the Agency's policy of establishing MCLGs of zero for carcinogens and instead establish MCLGs for carcinogenic contaminants at calculated negligible risk levels. EPA considered adopting finite, risk-based MCLGs when it promulgated MCLGs for five carcinogenic volatile organic chemicals. EPA decided that, given the nonthreshold nature of carcinogenic effects, the zero MCLG option best fulfilled the mandate of the SDWA to establish MCLGs "at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety." (See 49 FR 24347-24348, June 12, 1984, and 50 FR 46895-46896, November

13, 1985.) The decision by the Agency was upheld in *Natural Resources Defense Council v. Thomas*, 824 F.2d 1211 (D.C. Cir., 1987). For the reasons described previously, EPA believes at this time that it is appropriate to set MCLGs for known or probable carcinogens at zero. However, the Agency has included the request submitted by MBS in the record for this rulemaking. The Agency intends to fully address that submission and any related comments when final regulations are promulgated.

MBS also contended that the recent decision by the U.S. Court of Appeals for the District of Columbia Circuit in *Natural Resources Defense Council v. EPA*, 824 F.2d 1146 (1987) ("*Vinyl Chloride*"), which construed the Agency's duties under section 112 of the Clean Air Act, also applies to the establishment of MCLGs under the SDWA. The Agency does not believe that the court's analysis in *Vinyl Chloride* must be applied to the setting of MCLGs. That decision construed the specific language of section 112 of the Clean Air Act and the legislative history of that provision. Section 1412 of the SDWA differs from section 112 of the Clean Air Act both in terms of its language and legislative history. Furthermore, the role of the MCLG as a non-enforceable health goal, the first step in the process of determining the enforceable MCL, is unique to the SDWA. In light of the distinctions between section 112 of the Clean Air Act and section 1412 of the SDWA, the Agency does not believe that following the *Vinyl Chloride* analysis in setting MCLGs is either necessary or appropriate.

2. Setting MCLGs for Categories II and III Contaminants

a. *Calculation of Drinking Water Equivalent Level.* For compounds which are not considered to have sufficient carcinogenic potential (i.e., those contaminants in Categories II and III), EPA calculates "no-effect" levels for chronic periods of exposure, including a margin of safety. This level, measured in milligrams per kilogram of body weight per day (mg/kg/day), is termed the Reference Dose (RfD) [formerly termed the Acceptable Daily Intake (ADI)] and is derived from a no-observed-adverse-effect level (NOAEL) or lowest-observed-adverse-effect-level (LOAEL) identified from a study in humans or animals. The RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of the daily exposure to the human population (including sensitive subgroups) that is likely to be

without appreciable risk of deleterious

effect during a lifetime. The RfD is calculated as follows:

$$RfD = \frac{(NOAEL \text{ or } LOAEL)}{(\text{Uncertainty Factors})} = \text{mg/kg body weight/day}$$

Uncertainty factors are used in order to estimate the comparable "no-effect" level for a large heterogeneous human population. The use of uncertainty factors accounts for intra- and interspecies variability, the small number of animals tested compared to the size of the exposed population,

sensitive subpopulations and the possibility of synergistic action between chemicals. Further discussion on the use of uncertainty factors may be found in the November, 1985 notice.

From the RfD, a Drinking Water Equivalent Level (DWEL) can be calculated. The DWEL represents a

media specific (i.e., drinking water) lifetime exposure at which noncarcinogenic health effects are not anticipated to occur.

The DWEL assumes 100% exposure from drinking water and is derived as follows:

$$DWEL = \frac{(RfD) \times (\text{Body Weight in kg})}{(\text{Drinking Water Volume in l/day})} = \text{mg/l}$$

where:

Body Weight = usually assumed to be 70-kg adult.

Drinking Water Volume = assumed to be 2 liters(l)/day for an adult.

b. *Relative Source Contribution.* To determine the MCLG for non-carcinogens, the contribution from other sources of exposure, including air and food, is taken into account. In the November 1985 proposal, EPA used the following procedure to evaluate the drinking water contribution relative to the total exposure to determine the MCLG.

If sufficient quantitative data were available on the relative contribution of total exposure from each source, the MCLG was calculated as follows (Note: this equation is conceptual in nature; i.e., the units do not balance as written.):

$MCLG = DWEL - \text{contribution from food} - \text{contribution from air}$

The inorganics have been well studied in FDA market-basket studies and other surveys. Consequently, sufficient quantitative data are generally available for inorganic chemicals.

If sufficient quantitative data were not available on air and food exposure the MCLG was calculated based on the drinking water contribution to the DWEL as follows:

$MCLG = (DWEL) \times (\% \text{ Drinking Water Contribution})$

For some contaminants, particularly the organic chemicals, data are generally not available. When data did not exist, EPA then estimated drinking water's contribution at 20 percent of total exposure. This value was considered protective and conservative

and accounts for the range of actual (but unknown) exposures from different sources. When adequate data were available or when data indicated that the relative source contribution differed from the 20 percent value, the standard estimate was then modified as appropriate.

To derive the MCLGs proposed in this notice, EPA utilized the general approach to assessing relative source contribution (RSC) as explained above and presented in more detail in the November 1985 notice. However, EPA has changed its policy regarding use of the RSC value as follows: Where data indicate drinking water exposure is between 80 and 100 percent of total exposure to a contaminant, EPA assigns a relative source contribution for drinking water of 80 percent. If data indicate that drinking water is responsible for a large part of total exposure to a chemical (i.e., 80 to 100 percent), EPA believes that it is prudent to allow for the contingency that exposure via air, food and other sources that may not be reflected in the available data is likely to occur. Utilizing the 80% "ceiling" for drinking water exposures ensures that the MCLG will be low enough to provide adequate protection for individuals whose total exposure to a contaminant is, due to dietary or other exposure, higher than currently indicated by available data. This approach, in effect, introduces an additional uncertainty factor and results in a lower MCLG. It ensures that the MCLG will result in no adverse effect with an adequate margin of safety.

EPA is considering utilizing a 20 percent floor in calculating future drinking water contributions. While EPA

did not rely on the 20 percent floor in this notice, EPA is considering assigning a 20 percent relative source contribution value for drinking water where data indicates that drinking water contributes between zero and 20 percent of the total exposure. In these situations, drinking water contributes a relatively small portion of total exposure to a contaminant. The use of RSC values below 20 percent will yield MCLG values which are lower than when a 20 percent value is used. However, because the majority of the total exposure is from other sources (i.e., the diet and air), EPA believes that the most appropriate course of action would be to try to reduce these other sources of exposure rather than to promulgate increasingly lower MCLGs to control the relatively small exposures contributed by drinking water. Use of a 20 percent RSC "floor" may therefore be appropriate in these situations. EPA requests public comment on this approach.

An additional issue regarding the RSC of drinking water contaminants is volatilization. There is evidence that some drinking water contaminants volatilize into the air. Since a volatilized contaminant can be inhaled, the relative contribution from drinking water may be higher than a value based exclusively on ingestion exposure. However, little information is available to characterize exposure due to the volatilization of drinking water contaminants. EPA is presently developing a model which attempts to characterize exposure due to the volatilization of individual contaminants (EPA, 1988, "Volatilization of Drinking Water Contaminants (Draft)"). EPA intends to publish this

model as soon as it is available. Currently inadequate data is available to estimate exposure to volatile contaminants from other routes of exposure. EPA therefore estimates that drinking water contributes 20 percent of the total exposure. EPA believes this

estimate is conservative and is adequately protective considering the additional exposure that may occur due to volatilization. When the volatilization model mentioned above is complete, the Agency will decide whether it can use it to derive MCLGs for VOCs.

Table 2 summarizes the approach EPA uses to estimate the relative source contribution for the purpose of calculating the MCLG. EPA requests public comment on this approach.

TABLE 2.—RELATIVE SOURCE CONTRIBUTION—PERCENT OF TOTAL EXPOSURE

	Drinking water exposure between 20 and 80 percent	Drinking water exposure between 80 and 100 percent	Drinking water exposure less than 20 percent
Adequate data are available	EPA uses actual data.....	EPA uses an 80 percent drinking water contribution.	EPA would use a 20 percent drinking water contribution ¹
Adequate data are not available		EPA uses a 20% drinking water contribution.	

¹ Not applicable to the MCLGs proposed in this notice.

C. MCLG Value—Rounding Numbers

For each chemical in this notice, EPA determined the proposed MCLGs by rounding the final calculations to one significant figure. For example, if the calculations show a value of 0.44 mg/l, this is rounded to 0.4 mg/l. Conversely, a value of 0.45 mg/l is rounded to 0.5 mg/l. Values ending with 5 or more are consistently rounded up. EPA believes that rounding is appropriate because using more than one significant figure would imply a degree of precision that is not warranted given the large uncertainty factors (up to 1,000) which are generally used in deriving the MCLGs.

D. Summary of Proposed MCLGs

For most of the contaminants for which MCLGs are proposed in this notice, the Agency is proposing MCLGs which are essentially the same as those proposed in the November, 1985 proposal. For these contaminants, the details of the MCLG calculations, including the RfD, the uncertainty factor, the DWEL and the RSC factor are discussed in the November, 1985 notice. Comments submitted on the RMCLs of the earlier proposal have been considered in preparing the current MCLG proposal, and resubmission is not necessary unless new information is available. The Agency's initial response to previously submitted comments are summarized below. EPA will prepare a final Comment/Response document when the rule is promulgated.

EPA solicits comments on all contaminants particularly those MCLGs which were revised from the 1985 RMCLs. EPA also solicits comments on MCLGs proposed for the first time in this notice.

EPA is reproposing essentially the same MCLG values for the following contaminants (some levels are slightly different from those presented in the November 1985 proposal because the values have been rounded to one significant figure):

Inorganic Chemicals

Asbestos	Nitrate
Cadmium	Nitrite
Chromium	Selenium

Synthetic Organic Chemicals

Acrylamide	Ethylbenzene
Alachlor	Ethylene dibromide
Aldicarb	Heptachlor
Aldicarb sulfoxide	Heptachlor epoxide
Carbofuran	Lindane
Chlordane	Methoxychlor
Dibromochloropropane	Pentachlorophenol
o-Dichlorobenzene	PCBs
cis-1,2-Dichloroethylene	Toluene
2,4-D	Toxaphene
Epichlorohydrin	2,4,5-TP

EPA is proposing new MCLG values for the following contaminants:

Inorganic Chemicals

Barium
Mercury
Total nitrate and nitrite

Synthetic Organic Chemicals

Aldicarb sulfone
Atrazine
1,2-Dichloropropane
Monochlorobenzene
Styrene
trans-1,2-Dichloroethylene
Xylene

Table 3 presents the proposed MCLGs for the inorganic chemicals and Table 4 presents the proposed MCLGs for the synthetic organic chemicals.

TABLE 3.—PROPOSED MCLGs FOR THE INORGANIC CHEMICALS

IOC	Proposed MCLG (mg/l)
Asbestos.....	7
(million fibers/liter (longer than 10 um).)	
Barium.....	5.
Cadmium.....	0.005.
Chromium.....	0.1.
Mercury.....	0.002.
Nitrate ¹	10 (as N).
Nitrite ¹	1 (as N).
Selenium.....	0.05.

¹ MCLG for total nitrate and nitrite=10 mg/l.

TABLE 4.—PROPOSED MCLGs FOR THE SYNTHETIC ORGANIC CHEMICALS

SOC	Proposed MCLG (mg/l)
Acrylamide.....	Zero.
Alachlor.....	Zero.
Aldicarb.....	0.01.
Aldicarb sulfoxide.....	0.01.
Aldicarb sulfone.....	0.04.
Atrazine.....	0.003.
Carbofuran.....	0.04.
Chlordane.....	Zero.
Dibromochloropropane.....	Zero.
o-Dichlorobenzene.....	0.6.
cis-1,2-Dichloroethylene.....	0.07.
trans-1,2-Dichloroethylene.....	0.1.
1,2-Dichloropropane.....	Zero.
2,4-D.....	0.07.
Epichlorohydrin.....	Zero.
Ethylbenzene.....	0.7.
Ethylene dibromide.....	Zero.
Heptachlor.....	Zero.
Heptachlor epoxide.....	Zero.
Lindane.....	0.0002.
Methoxychlor.....	0.4.
Monochlorobenzene.....	0.1.
PCBs.....	Zero.
Pentachlorophenol.....	0.2.
Styrene.....	¹ Zero/0.1.
Tetrachloroethylene.....	Zero.
Toluene.....	2.
Toxaphene.....	Zero.

TABLE 4.—PROPOSED MCLGS FOR THE SYNTHETIC ORGANIC CHEMICALS—Continued

SOC	Proposed MCLG (mg/l)
2,4,5-TP.....	0.05.
Xylenes (total).....	10.

¹ EPA proposes an MCLG of 0.1 mg/l based upon a Group C carcinogen classification and an MCLG of zero based on a group B₂ classification.

E. Summary of Comments

EPA received 117 comments on the proposed MCLGs in the November 1985 proposal. A brief summary of the comments dealing with general issues concerning the MCLGs follows. Many of these comments dealt with issues concerning individual chemicals and are summarized in the chemical-specific discussions below. EPA will respond to all public comments related to this rulemaking and any additional comments on this notice when the Agency promulgates a final rule.

1. Comments on MCLGs and MCLs

Twelve individuals or organizations addressed the term "RMCL." Most of these commenters suggested that the name be changed to more accurately reflect its true meaning as a non-enforceable health goal. Others suggested that there is no need to establish both RMCLs and MCLs, and that the process should be integrated into a single, science-supported standard, the MCL.

One commenter discussed the use of uncertainty factors in setting MCLGs and MCLs. This commenter argued that MCLGs and MCLs should be calculated using smaller uncertainty factors.

EPA response: Under the SDWA Amendments of 1986, the term recommended maximum contaminant level (RMCL) has been changed to maximum contaminant level goal (MCLG). This change will help clarify the non-enforceable status of MCLGs. The SDWA requires promulgation of two distinct standards, the MCLG and the MCL. The 1986 Amendments require that MCLGs and MCLs be proposed and promulgated simultaneously.

EPA believes the uncertainty factors utilized in deriving the proposed MCLGs will ensure that the uncertainties noted below are adequately taken into account when MCLGs are set. The use of uncertainty factors represents EPA's best toxicology judgments considering the quality of the available data. These judgments are based upon procedures generally accepted in the scientific community. The MCLGs are health goals

set at levels to prevent adverse health effects with an adequate margin of safety. This safety margin must be sufficient to account for data uncertainties, extrapolation from animal to human data, and other factors. The Agency does not believe that the use of smaller uncertainty factors will ensure that the MCLGs adequately protect against adverse health effects with an adequate margin of safety.

2. Comments on the Definition of Community Water Systems

Nine individuals or organizations provided comments regarding EPA's concerns about long-term exposure in non-community water systems that serve non-transient populations, such as schools and factories. Some commenters believed that the definitions of community and non-community public water systems should be unchanged. Other commenters felt that non-transient, non-community water systems should meet the MCLs applicable to community water systems.

EPA response: EPA promulgated a definition of "non-transient, non-community water system" (52 FR 25690, July 8, 1987; 40 CFR 141.2). EPA addressed comments submitted on this issue in the July 8 notice. EPA agrees with the commenters that non-transient, non-community water systems should be required to meet the same MCLs as community water systems since the chronic health risks to consumers in non-transient, non-community systems are similar to those in community water systems. Consequently, the MCLs promulgated in this rulemaking will apply to all community water systems and non-transient, non-community water systems.

3. Comments on Selection of Contaminants for Regulation

Twenty-five commenters addressed EPA's approach to selecting contaminants for regulation. Under this approach, EPA establishes MCLGs and MCLs for substances that may present a drinking water health concern. Most commenters supported this approach. Several commenters disagreed with this approach and felt that EPA should only regulate when contaminants (1) pose significant adverse health effects, (2) are actually or likely to be present in drinking water, and (3) are detectable by available analytical techniques.

EPA response: Since the ANPRM and proposal in November, 1985, the SDWA was amended in 1986, and EPA is now mandated to set MCLGs and MCLs or treatment techniques for all of the contaminants referenced in § 1412(b)(1), except for seven chemicals which may

be substituted out of the list (see 52 FR 25720).

4. Comments on Selection of Specific Contaminants for Regulation

Fifteen individuals or organizations submitted comments concerning the selection of specific contaminants for regulation. Several commenters discussed the lack of human health data for these contaminants in drinking water. One commenter stated that MCLGs and MCLs should not be set for synthetic organic chemicals since insufficient health effects data exists to evaluate these chemicals.

EPA response: As noted above, although EPA asked for public comments on which contaminants to regulate, the SDWA now specifies 83 contaminants which must be regulated by June 19, 1989. Under the Act, EPA has the discretion to substitute for seven of these compounds. On January 22, 1987 (53 FR 1892) EPA published its list of seven substitutes. EPA agrees that human health data for contaminants of concern are often limited. However, EPA does not agree that there are insufficient health effects data to justify regulating the organic chemicals. Available health effects data indicate that these chemicals can cause adverse health effects under certain conditions. The MCLGs are proposed at levels to prevent these effects with an adequate margin of safety. The SDWA requires EPA to regulate synthetic organic chemicals covered in this notice.

5. Comments on Procedures for Calculating MCLGs

Twenty-two commenters provided comments on the procedure for calculating MCLGs. A few commenters stated that the term Acceptable Daily Intake (ADI) was confusing and suggested that EPA derive only a single number (the MCLG).

EPA response: EPA has substituted the term Reference Dose (RfD) for ADI. EPA believes that the derivation of the RfD value is an important step in determining and explaining the level of a contaminant which meets the statutory standard for MCLGs. (See the July 8, 1987 Federal Register Notice for discussion of calculating the MCLG.)

6. Comments on Three-Category Approach for Setting MCLGs

Twenty-seven individuals or organizations discussed the three-category approach for setting MCLGs, as presented in Table 1 above. The majority of commenters endorsed this approach. Several commenters criticized the Agency's policy of setting the MCLG

at zero for known or probable human carcinogens.

EPA response: EPA believes setting MCLGs for known or probable human carcinogens at zero is consistent with the statutory directive to set MCLGs at the level at which no known or anticipated adverse effects on the health of persons occur and which provide for an adequate margin of safety. The U.S. Court of Appeals for the D.C. Circuit has upheld this approach in *NRDC v. Thomas*, 824 F.2d 1211 (D.C. Cir. 1987). As discussed previously, the Agency continues to believe that MCLGs of zero are consistent with the statutory directive.

7. Comments on Monitoring and Reporting Requirements

Thirteen commenters discussed monitoring and reporting requirements for the regulated contaminants. Several commenters felt that each State should establish its own public notification and monitoring requirements and maintain all responsibility for issuing variances. One commenter noted that the States strongly support maximum State discretion in establishing monitoring requirements, particularly for synthetic organic chemicals.

A number of commenters discussed the three-tiered monitoring scheme which varies monitoring requirements based upon the occurrence and health effects of the specific contaminants. Most commenters expressed support for this monitoring approach and the resulting flexibility. Two commenters were concerned that the guidelines for each tier will not have enough flexibility resulting in small systems undertaking costly monitoring programs which are not affordable.

EPA response: The SDWA mandates that EPA establish MCLGs/MCLs, public notification, monitoring and variance requirements (among others) while States may implement and enforce these requirements. The monitoring requirements for this regulation propose a phased-in sampling requirement based on system size and reduced monitoring frequency for small systems. This approach would reduce the small system economic burden of monitoring. Furthermore, today's proposed rule allows the State flexibility in requiring initial monitoring for pesticides and PCBs based upon a vulnerability assessment. The proposed repeat monitoring frequency for these contaminants is also dependent upon the system's vulnerability and whether pesticides or PCBs are detected in initial sampling results.

8. Comments on Financial Considerations

Six individuals or organizations discussed financial considerations in developing regulations. Several commenters stated that national drinking water standards (including the monitoring requirements) should be flexible and cost-effective.

EPA response: Under the SDWA, MCLs are applicable nationwide and apply to all systems, except where a public water supply obtains a variance or exemption under the Act. EPA does take costs into consideration in developing NPDWRs and the Agency agrees that cost effectiveness considerations should be taken into account. In terms of compliance monitoring, EPA agrees that the monitoring requirements should be tailored to local conditions and is proposing monitoring requirements which allow States to determine which systems must monitor based on a vulnerability assessment.

F. Proposed MCLGs for Inorganic Chemicals

1. *Asbestos.* EPA proposed an MCLG of 7.1 million fibers/liter for asbestos fibers exceeding 10 μ m in length in November 1985. That proposal was based upon evidence of occurrence of benign polyps in male rats following oral administration of intermediate (> 10 μ m range chrysotile asbestos. EPA also requested comment on the option of not proposing a primary regulation for asbestos due to the inconclusive nature of the health data. EPA has reexamined both options and has decided to repropose an MCLG of 7 million long fibers/liter (rounded off from 7.1 million) since sufficient health and occurrence data exist to justify a national regulation and the 1986 SDWA Amendments require the Agency to regulate this contaminant.

EPA has classified asbestos as a Group A, known human carcinogen, based upon human and animal evidence that inhaled asbestos is associated with lung tumors. However, EPA has not proposed an MCLG for asbestos based upon this classification, since the evidence for the association between ingested asbestos and cancer is limited (see discussion at 50 FR 46961). Instead, EPA has proposed an asbestos MCLG considering the chemical for drinking water purposes as if it were in Group C, based on the limited evidence of carcinogenic effects via ingestion.

EPA has considered whether inhalation exposure to indoor airborne asbestos from the water could present a health concern. EPA examined this issue

and based upon available data has concluded that the risk of this route of exposure is not significant. This is supported by a recent study from the New York State Department of Health (1986) (Investigation of Indoor Airborne Asbestos, Woodstock, New York, 1986). This is considered to be a worst case example since the drinking water was very corrosive resulting in severe degradation of the water system's asbestos-cement (A/C) pipe. Levels of asbestos were measured in excess of 300 million fibers per liter. Levels of asbestos in air were found not to be significantly different than background levels. Also, the levels in drinking water from corrosion of A/C pipe will be controlled in some systems by the corrosion control treatment technique regulation for lead and copper currently being developed by EPA.

On January 29, 1986, EPA proposed a rule under Section 6 of the Toxic Substances Control Act (TSCA) to ban the manufacture of certain asbestos products, including A/C pipe, and to phase out others. The TSCA proposal does not impact the use of currently installed A/C pipe. EPA recommends that water suppliers adopt corrosion control strategies to minimize corrosion of A/C piping material.

Public comments: A total of 23 individuals or organizations commented on the MCLG proposal for asbestos. A number of commenters stated that it was not appropriate to set an MCLG for asbestos since there are inadequate data to establish that ingestion of asbestos fibers presents a health risk. Three commenters felt that since epidemiological studies have not shown a correlation between asbestos in drinking water and cancer and the only evidence of carcinogenicity of asbestos by ingestion is from the National Toxicology Program (NTP) bioassay, an MCLG should not be established.

Several commenters stated that it is not appropriate to set an MCLG for asbestos since there are inadequate occurrence data. They stated that the NTP bioassay indicated that only asbestos fibers longer than 10 μ m appear to be of health significance in drinking water and there are no data that indicate that fibers longer than 10 μ m occur in drinking water.

Additional commenters felt that an MCLG should not be established for asbestos, since analytical methods to measure low levels of asbestos are not available. One commenter agreed that it was appropriate to set an MCLG for asbestos but expressed concern over the expense involved in monitoring for asbestos. Another commenter felt that

imprecise analytical results can only justify an MCLG of one significant figure. One commenter stated that the EPA did not consider the interactive effects observed in the NTP bioassay.

EPA response: EPA recognizes that the evidence of the health effects of ingested asbestos is limited. There was an increased incidence of benign polyps in male rats following ingestion of intermediate (>10 μ m in length) range chrysotile asbestos. However, EPA believes that there is a sufficient basis to justify regulating asbestos for the reasons outlined in the November 13, 1985, notice. Furthermore, the 1986 SDWA Amendments direct EPA to regulate asbestos.

EPA believes that sufficient occurrence data exist to warrant an MCLG for asbestos, since asbestos entering water supplies from asbestos/cement pipe is common where corrosive water is being used. While EPA agrees that the great majority of the asbestos fibers found in ground and surface waters are less than 10 μ m in length, available data indicate that a small percentage of fibers are greater than 10 μ m in length.

Under the SDWA, the availability of analytical methods is not a prerequisite to the establishment of an MCLG for a contaminant. Rather, that availability impacts on whether EPA promulgates an MCL or treatment technique as the enforceable standard (see sections IV and VI for a discussion of analytical methods and monitoring requirements for asbestos proposed in this notice).

EPA is proposing that only vulnerable systems monitor for asbestos, based upon a vulnerability determination by the State. This should significantly reduce the costs of monitoring.

EPA agrees that this MCLG should only be one significant figure and is reproposing an MCLG of 7 million fibers/liter for asbestos fibers exceeding 10 μ m in length.

Regarding the comment on interactive effects, the NTP bioassay which studied rats exposed to 1,2-dimethyl-hydrazine dihydrochloride (DMH) and DMH with intermediate range chrysotile asbestos did not appear to significantly affect the carcinogenic potential of DMH, neither increasing or decreasing biologically important neoplasms.

2. **Barium.** EPA proposed an MCLG of 1.5 mg/l for barium in the November 1985 proposal on the basis of a study showing that chronic exposure to barium resulted in hypertension in rats (Perry, H.M., Kopp, S.J., Erlanger, M.W., Perry, E.F. 1983. "Cardiovascular Effects of Chronic Barium Ingestion." In: Hemphill, D.D., ed., *Trace Substances in Environmental Health—XVII*.

Proceedings of University of Missouri's 17th Annual Conference on Trace Substances in Environmental Health. Columbia, MO: University of Missouri Press). The 1985 notice also described the results of an epidemiology study which found that male and female adults consuming drinking water containing high levels of barium (7.3 mg/l) for more than ten years did not manifest significant differences in mean systolic/diastolic blood pressures (Brenniman, G.R., Kojola, W.H., Levy, P.S., Carnow, B.W., Namekata, T. 1981. "High Barium Levels in Public Drinking Water and Its Association with Elevated Blood Pressure." *Arch. Environ. Health*. 36(1):28-32; and see also Brenniman, G.R., Levy, P.S. 1984. "Epidemiological Study of Barium in Illinois Drinking Water Supplies.") While the Agency proposed an MCLG of 1.5 mg/l, EPA also solicited comment on whether the MCLG for barium should be based upon a chronic suggested no-adverse-response level (SNARL) of 4.7 mg/l derived by the National Academy of Science (NAS) (Drinking Water and Health, 1982. Vol. IV). EPA noted some concerns about the Perry and Brenniman studies as well as the SNARL derived by the NAS. Because of these questions, EPA believed that further study was appropriate and the Agency instituted a human study subsequent to the 1985 notice that examined the effect of barium in drinking water on blood pressure (Wones *et al.*, 1987, "Lack of Effect of Drinking Water Barium on Cardiovascular Risk Factors," University of Cincinnati College of Medicine, Cincinnati, OH, manuscript in preparation). After reevaluating the available data in light of the human study, EPA is reproposing an MCLG of 5 mg/l for barium.

In the Wones study, eleven healthy men were enrolled in a 10-week dose-response protocol in which diet was controlled, other aspects of lifestyle known to affect cardiac risk factors were controlled, and the barium content of the drinking water (1.5 l/day) was varied from 0 (first 2 weeks) to 5 mg/l (next 4 weeks) to 10 mg/l (last 4 weeks). Multiple blood and urine samples, morning and evening blood pressures, and 48-hour electrocardiographic monitoring were performed at each dose of barium. There were no changes in morning or evening systolic or diastolic blood pressures, plasma cholesterol or lipoprotein or apolipoprotein levels, serum potassium or total calcium or glucose levels, or urine metanephrine levels. There were no arrhythmias related to barium exposure detected on electrocardiographic monitoring. In summary, drinking water barium at

levels of 5 and 10 mg/l did not appear to affect any of the cardiovascular risk factors studied in this project.

In light of the Wones *et al.* study, EPA believes that it is not appropriate to rely on the Perry *et al.* study in deriving the MCLG for barium. As the Agency noted in the preamble to the 1985 proposal, the rats in the study were exposed to minimal levels of trace metals, including calcium, and the lack of calcium may have contributed to the hypertensinogenic effects observed. Because the weight of the available human data (Wones *et al.*, 1987; Brenniman *et al.*, 1981; Brenniman and Levy, 1984) appear to contradict the results found in the Perry *et al.* rat study and thereby substantiate the Agency's concerns about that study, EPA is not relying on Perry *et al.* to derive the reproposed MCLG.

The Wones *et al.* study failed to detect adverse effects at 10 mg/l. EPA has applied an uncertainty factor of 2 to derive an MCLG of 5 mg/l. EPA applied an uncertainty factor of 2 rather than a factor of 10 which would normally be applied with a human study with a NOAEL due to the fact that the study is corroborated by the results of other studies (i.e., the Brenniman *et al.*, 1981 study). EPA has not factored RSC into this number since the basis is a human study in which contribution from food and air is already taken into account. The reproposed MCLG is supported by the results of Brenniman *et al.*, which failed to find adverse effects at slightly higher levels of 7.3 mg/l. Furthermore, the reproposed MCLG is also consistent with the 4.7 mg/l value recommended by the NAS. EPA stated in the preamble to the 1985 proposal that 4.7 mg/l did not appear to be adequately protective of children. EPA now believes this is not the case since hypertension is an effect which is seen after many years of exposure and thus adults would be the population at risk for this effect.

EPA requests public comment on the approach used to set the MCLG for barium.

Public Comments: A total of 14 individuals or organizations submitted comments in response to the barium proposal.

One commenter raised two points regarding the health effects of barium: (1) barium may have beneficial effects on teeth and bone, and (2) EPA has incorrectly assumed that barium acts with no toxic threshold. One commenter argued that barium should not be classified as a heavy metal since the solubility of barium is adequate to allow excretion from the body and prevent cumulative toxicity.

One commenter stated that EPA should distinguish between salts of barium that are water soluble (chloride, nitrate, bicarbonate) and those that are water insoluble (sulfate, phosphate, carbonate). Two commenters expressed support for the proposed MCLG of 1.5 mg/l for barium, but most commenters disagreed with the proposed MCLG, arguing that it is unduly restrictive and should be higher. Reasons cited in support of this argument included the following: no information is presented to indicate barium occurs in public water systems at concentrations of 4.7 to 7.0 mg/l, so barium should not be regulated; there is no evidence that barium bioaccumulates, so there is no reason to expect cumulative damage; available epidemiological studies indicate that barium-containing water does not cause hypertension or cardiovascular problems; and establishment of a stringent MCLG will impose considerable cost of compliance without significant health benefits.

One commenter stated that the MCL should be retained at the present level of 1.0 mg/l until it can be proven conclusively that the proposed new level (1.5 mg/l) will not have hypertensinogenic or cardiotoxic effects. A number of commenters argued that it is not appropriate to base the MCLG for barium on the cardiovascular effects in rats reported by Perry *et al.* (1983). The reasons cited for this included the following: the results are based on intravenous administration, which is not an appropriate model for oral exposure; the effects have been demonstrated in only one study; and available human data are more relevant than animal data.

A number of commenters argued that the study by Brenniman *et al.* (1981) is adequate to establish that ingestion of water containing 7.3 mg/l of barium does not result in hypertension in humans, and that this should serve as the MCLG.

A number of commenters argued that the proposed MCLG for barium is unduly restrictive and that the chronic SNARL of 4.7 mg/l calculated by NAS is a more appropriate value. These commenters stated that the study by Brenniman *et al.* (1981) confirms that a concentration of 4.7 mg/l is not associated with adverse effects in humans, supporting the SNARL proposed by NAS.

EPA Response: EPA is aware of only one report [Sanders, H.J. 1971. *Chemical and Engineering News*, Feb. 25, 1980, page 38] showing beneficial effects of barium in animals, and EPA does not believe there is adequate evidence to conclude that barium is beneficial to

humans. EPA believes there is a threshold for health effects due to barium, and has set an MCLG based on the threshold value determined from several exposure studies.

Whether barium should be classified as a heavy metal is irrelevant to the establishment of an MCLG for this contaminant. The data clearly indicate that there are adverse health effects from exposure to barium and the MCLG is proposed at the level which will prevent those effects with an adequate margin of safety (see the Criteria Document on Barium).

While barium sulfate is poorly soluble, it is not insoluble, and EPA is aware of no data indicating that dissolved barium sulfate is not absorbed from the gastrointestinal tract. Moreover, insoluble barium salts may be partially solubilized in the acid environment of the stomach.

The commenter is incorrect in stating that barium does not occur in drinking water at concentrations of 4.7 to 7.0 mg/l. Barium is widely distributed in drinking water, and high levels do occur (Brenniman *et al.*, 1981; Brenniman and Levy, 1984).

All the available evidence indicates that barium is toxic to humans and therefore the issue of bioaccumulation in the body is irrelevant to the issue of what level will prevent those effects with an adequate margin of safety.

Although the commenter is correct in stating that the available epidemiological studies have not shown cardiovascular effects in humans, the available animal studies have demonstrated that hypertension is associated with exposure to barium. Furthermore, EPA has chosen the highest NOAEL from the available human studies in order to be protective against the occurrence of cardiovascular effects in the human population.

Derivation of an MCLG (a nonenforceable health goal) is based on consideration of health effects only, and does not consider the cost of compliance. The costs of compliance are considered in the derivation of the MCL (see Section IV).

Regarding retaining the MCL at 1.0 mg/l, EPA has determined that the reproposed MCLG of 5 mg/l will prevent adverse health effects (hypertension or cardiotoxic effects) with an adequate margin of safety. Thus, EPA does not agree with the commenter that the MCL should not be revised.

EPA is no longer relying solely on the Perry *et al.* study in determining the MCLG for barium, for the reasons explained above. However, EPA does not agree with the commenters that intravenous administration should not

be considered an appropriate model for oral administration. Intravenous administration is accepted by toxicologists as a valid testing method and may be used to approximate oral exposure. EPA agrees with the commenters that more than one study should be considered, if available, and that, in this case, the available human data are more relevant in determining the human health effects of barium exposure than the available animal data. Therefore, EPA is basing the reproposed MCLG on the weight of all the available evidence.

EPA has considered the Brenniman *et al.* study in determining that the reproposed MCLG adequately protects against adverse effects with an adequate margin of safety. The Agency has derived the MCLG based on a NOAEL of 10 mg/l derived from the Wones study. EPA does not believe that setting the MCLG at the NOAEL from the Brenniman study is appropriate, since that level does not include an uncertainty factor. The reproposed MCLG at 5 mg/l is very close to the NAS value of 4.7 mg/l, and EPA agrees with several commenters that this level is appropriate.

3. Cadmium. EPA proposed an MCLG of 0.005 mg/l for cadmium in the November 1985 proposal. This was based upon a DWEL of 0.018 mg/l, using renal dysfunction as an endpoint. EPA has classified cadmium in Group B1, probable human carcinogen, based upon evidence of lung cancer in humans due to inhalation exposure. However, EPA did not propose an MCLG for cadmium based upon this classification, since cadmium has not been shown to be carcinogenic through ingestion. Instead, EPA proposed an MCLG for cadmium based upon chronic toxicity data. Since there is inadequate dose-response data to characterize the presence or lack of a carcinogenic hazard, EPA is regulating cadmium for drinking water purposes as if it were in Group D. No new relevant data which changes the conclusions presented in the November 1985 notice have become available since its publication. EPA is therefore reproposing an MCLG of 0.005 mg/l for cadmium.

Public comments: Nine individuals or organizations commented on the MCLG proposal for cadmium. Five commenters agreed with the proposed MCLG, stating that there are adequate health effects and occurrence data and the value is in accord with the Suggested-No-Adverse-Response-Level (SNARL) proposed by the National Academy of Sciences (NAS). One commenter stated that the present MCL of 0.01 mg/l was fully

protective and should not be lowered. Another commenter felt that the assumption of 25 percent drinking water contribution in the MCLG calculation was too high. One commenter stated that EPA should regulate cadmium as a carcinogen.

EPA response: Regarding the lowering of the present MCL, EPA believes that this lower proposed MCLG is protective against adverse effects with an adequate margin of safety, for the reasons discussed in the November 1985 notice.

Regarding the 25 percent drinking water contribution for cadmium, EPA believes that this value is appropriate, since evidence indicates that absorption of cadmium is greater from water than from food. Thus, absorbed cadmium from the drinking water would contribute more than the 20% which EPA believes is appropriate to allocate to drinking water when data indicating relative source contribution are not available. Since actual data are not available with regard to cadmium, EPA believes that 25 percent is an appropriate estimate. The commenter provided no data to dispute this assumption. Furthermore, use of a 25% drinking water contribution yields a proposed MCLG which is consistent with the World Health Organization (WHO) recommendation of 0.005 mg/l for cadmium (Guidelines for Drinking Water Quality, Volume 1, WHO, Geneva, 1984). EPA has classified cadmium in Group B1, probable human carcinogen, based upon evidence of lung cancer from inhalation exposure. However, EPA is regulating cadmium for drinking water purposes as if it were in Group D, since there is no evidence of cancer from ingestion exposure.

4. Chromium. EPA proposed an MCLG of 0.12 mg/l for total chromium (Cr III and Cr VI) in the November 1985 proposal. EPA has classified chromium in Group A, known human carcinogen, based upon evidence that chromium VI causes lung cancer in humans and animals through inhalation exposure. EPA did not propose an MCOG for chromium based upon this classification, since chromium has not been shown to be carcinogenic through ingestion. Instead, EPA has proposed an MCLG for chromium based upon chronic toxicity data, since there is inadequate dose-response data to characterize the presence or lack of a carcinogenic hazard. EPA is regulating chromium for drinking water purposes as if it were in Group D. No new data which would change the conclusions presented in the November 1985 notice have become available since its publication. EPA is

therefore reproposing an MCLG of 0.1 mg/l for total chromium, rounded from the proposed value of 0.12 mg/l.

Public comments: Fourteen individuals or organizations commented on the MCLG proposal for chromium. One commenter stated that an MCLG should not be established for chromium since the data are inadequate to show that ingestion of chromium is associated with carcinogenicity. Another commenter felt that there should be no change in the existing chromium regulation.

Several commenters stated that the MCLG for chromium should be based on Cr VI instead of total chromium since (1) analytical methods exist for measuring Cr VI, (2) problems exist in applying an MCLG based on Cr VI to other valence states and (3) there is no evidence that Cr III is oxidized to Cr VI during drinking water disinfection.

Several commenters supported the proposed MCLG for chromium based on total chromium, while a number of commenters argued that separate MCLGs should be established for the two valence states of chromium, with main attention on Cr VI due to the greater toxicity of this valence state. Several commenters stated that the MCLG for Cr III can be much higher or even eliminated. One commenter stated that EPA should regulate chromium as a carcinogen. Another commenter felt EPA should have assumed a drinking water contribution of 20 percent, not 70 percent, since the contribution from food ranges from 50 percent to 99 percent.

EPA response: The MCLG for chromium is not based on carcinogenicity. While there is convincing evidence that occupational exposure (i.e., inhalation) to Cr VI may lead to cancer of the respiratory tract (NAS, 1977, *Drinking Water and Health*, Washington, DC: National Academy Press, pp. 241-246, August 1984.), EPA believes that the nature of the carcinogenic hazard via ingestion cannot at present be defined. In this regard, EPA's Cancer Risk Assessment Verification Endeavor (CRAVE), an intra-Agency group which examines the carcinogenic classification of chemicals, has concluded that there is adequate evidence to conclude that Cr VI is oncogenic via inhalation in humans (EPA Category A). However, CRAVE concluded that there was inadequate data to demonstrate that Cr VI has an oncogenic potential via ingestion. As there is inadequate evidence to suggest that chromium presents a carcinogenic risk via ingestion, EPA has based the proposed MCLG on a study which

examined the non-carcinogenic effects following oral administration of Cr VI.

EPA believes that the health data are adequate to justify setting an MCLG for chromium (see the November 1985 notice) and these data support the proposed MCLG, which is different than the interim chromium MCL. Furthermore, the SDWA Amendments mandate that EPA promulgate an MCL for this contaminant.

EPA agrees that analytical methods exist for measuring Cr VI. EPA believes it is proper to set an MCLG for total chromium based on the toxicology of Cr VI, since the two valence states are in dynamic equilibrium with the degree of oxidation depending on factors such as pH, dissolved oxygen, or presence of reducing agents. Information on the oxidation of Cr III to Cr VI developed by EPA's Office of Research and Development has shown Cr III to oxidize to Cr VI in the presence of chlorine at concentrations similar to those used to disinfect drinking water. Because of the potential for Cr III to be oxidized to Cr VI in drinking water, EPA believes it is appropriate to set an MCLG for total chromium.

EPA agrees that Cr III is of low toxicological concern and thus has based the MCLG on the toxicity of Cr VI. However, EPA does not agree that separate MCLGs should be set for the two valence states of chromium since there is the potential for Cr III to be converted to Cr VI in drinking water systems (as discussed above) and separate MCLGs would not consider this conversion potential.

EPA agrees that food normally contributes over 50 percent of the total dietary intake of chromium. However, in cases where chromium drinking water concentrations are at the MCLG of .1 mg/l, available data indicate that drinking water provides about 70 percent of the total daily chromium intake.

5. Mercury. EPA proposed an MCLG of 0.003 mg/l for mercury in the November 1985 proposal. Discussions of the human exposure data and the health effects of mercury are presented in the November 1985 proposal. This notice will discuss only new data and conclusions since publication of that notice, resulting in a repropose MCLG of 0.002 mg/l.

In the November 1985 proposal, EPA calculated a DWEL of 0.005 mg/l for mercury based upon a study in which rats were exposed to inorganic mercury salts for 8 to 12 weeks through subcutaneous injection [Druet et al. 1978, "Immune Type Glomerulonephritis Induced by Mercuric Chloride in the

Brown Norway Rat." *Ann. Immunol.* 129:777-792]. EPA used a NOAEL of 50 ug/kg/day (adjusted by 36 doses, 84 days), a factor of 0.739 to adjust for the percentage by weight of mercury in mercuric chloride, an uncertainty factor of 1,000 and an absorption factor of 10% to compensate for the difference in absorption between subcutaneous and oral exposure in the calculations. EPA based the DWEL and the MCLG on inorganic mercury since almost all mercury detected to date in drinking water is in this form.

The repropoed MCLG is based upon several short-term studies, including the Druet et al. study. EPA recently held a workshop on issues regarding the DWEL for mercury (EPA, Peer Review Workshop on Mercury Issues, Summary Report, October 26-27, 1987), and the conclusion was that since there are several short-term studies which used the same techniques and examined the same endpoints for mercury toxicity, each of these studies should be used as the basis for the DWEL. EPA calculated DWELs based upon the Druet et al. study in which exposure was via subcutaneous injection and two oral studies (Bernaudin et al. 1981).

"Inhalation or Ingestion of Organic or Inorganic Mercurials Produces Auto-Immune Disease in Rats." *Clin. Immunol. Immunopath.* 20:129-135; and Andres, P. 1984. "Brief Communications: IgA-IgG Binding in the Intestine of Brown-Norway Rats Ingesting Mercuric Chloride." *Clin. Immunol. Immunopath.* 30:488-494]. The DWEL based upon the Druet et al. study has been recalculated using the same calculations as in the November 1985 proposal except for the absorption factor. An absorption factor of 7 percent has been applied (versus the 10 percent which was used in the November 1985 proposal), since EPA believes that the current data indicates that 7 percent absorption more accurately represents the actual absorption of mercury. This absorption factor has been applied to account for the fact that the study was via subcutaneous injection instead of oral exposure. A DWEL of 0.011 mg/l was calculated based upon the Bernaudin et al. (1981) study; a DWEL of 0.022 mg/l was calculated based upon the Andres (1984) study and a DWEL of 0.008 mg/l was calculated based upon the Druet et al. study. The workshop on mercury concluded that 0.01 mg/l is an appropriate level for the DWEL based upon a review of all the data. In addition, this level is consistent with the DWEL calculated from the Bernaudin et al. (1981) study (this was rounded from 0.011 mg/l), which was the lowest

exposure dose from a study using oral exposure. EPA believes that studies using oral exposure are the most appropriate for drinking water purposes.

In November 1985, EPA proposed an MCLG of 0.003 mg/l, based upon a DWEL of 0.005 mg/l with data on human exposure factored in (0.0043 mg/day via the diet and 0.001 mg/day via air). The dietary data consisted primarily of organic mercury, i.e., the available information indicates that approximately 10 percent of the dietary intake is inorganic mercury, with the remaining 90 percent being organic mercury. Since the proposed MCLG was for inorganic mercury, EPA believes that it was incorrect to use the dietary data based on organic mercury in the calculation. Instead, EPA proposes to apply a 20 percent contribution factor from water. This is because the available data indicate that the drinking water contribution for inorganic mercury appears to be small, with dental amalgams probably being the major contributing factor to overall inorganic mercury exposure. However, the data are insufficient to evaluate the drinking water contribution in relation to other sources of exposure and thus EPA is applying a 20 percent drinking water contribution factor. Applying this factor results in an MCLG of 0.002 mg/l. The WHO guideline for total mercury is 0.001 mg/l for total mercury, which is in the same range as the proposed MCLG. EPA requests public comment on the approach used to set the MCLG for mercury.

Public comments: Eight individuals or organizations commented on the MCLG proposal for mercury. Two commenters supported the proposed MCLG for mercury. Three commenters argued that the proposed MCLG was inappropriate for the following reasons: (1) the uncertainty factor of 1,000 is too high, (2) the MCLG appears to have been based on the health effects of methyl mercury even though mercury in drinking water is usually in the inorganic form, (3) increasing the MCLG from the current MCL of 0.002 mg/l represents a very small change in the actual number and thus is not worth changing, and (4) there is no evidence that exposure occurs at a level of health concern.

Three commenters stated that EPA should not propose a separate MCLG for organic mercury compounds.

EPA response: An uncertainty factor of 1,000 is consistent with the NAS/ODW guidelines for use with a NOAEL from an animal study of less-than-lifetime duration. The MCLG was calculated based on health effects data on inorganic mercury, although

discussions of the toxicity of methyl mercury are included in the health criteria document.

The repropoed MCLG is at the same level (0.002 mg/l) as the current MCL, thus the comment concerning the change in the number is no longer relevant. EPA agrees that exposure to mercury through drinking water is generally very low and is generally below the levels of health concern, however, the potential for contamination exists. In addition, the 1986 Amendments to the SDWA require that an MCLG be set for mercury.

EPA agrees that a separate MCLG for organic mercury compounds should not be proposed because almost all mercury detected in drinking water is in the inorganic form.

6. & 7. Nitrate and Nitrite. EPA is proposing MCLGs for nitrate and nitrite that are identical to those in the November 1985 notice. These levels are 10 mg/l for nitrate and 1 mg/l for nitrite. (Note: In relation to drinking water, both nitrate and nitrite are commonly reported as nitrogen rather than as nitrate (N^{+3}) or nitrite (N^{+2}), per se; 10 mg/l of nitrate measured as nitrogen is equivalent to 45 mg/l nitrate.) The levels for nitrate and nitrite in this notice are stated in terms of these two compounds measured as nitrogen. EPA is also proposing an MCLG for total nitrate and nitrite of 10 mg/l, i.e., the sum of nitrate and nitrite may not exceed 10 mg/l. The MCLG for total nitrate and nitrite was not proposed in the November 1985 notice.

As described in the November 1985 proposal, the toxicity of nitrate in humans is due to the reduction of nitrate to nitrite in the human body. By reacting with hemoglobin, nitrite forms methemoglobin (met Hb) which will not transport oxygen to the tissues and thus can lead to asphyxia (i.e., blue babies) which, if sufficiently severe, can lead to death.

Regarding met Hb concentration levels which would be of concern, approximately 1% of circulating hemoglobin normally exists in the form of met Hb. Clinical symptoms occur at approximately 10 percent met Hb and a 50-75 percent level of met Hb results in death (NAS, 1972. Accumulation of Nitrate. National Research Council). Infants are the population most sensitive to the acutely toxic effects of nitrate and nitrite for a variety of reasons including greater water consumption/kg body weight, increased percent conversion of nitrate to nitrite and greater sensitivity of hemoglobin.

The current standard for nitrate is based on the previous Public Health Standard which, in turn, was based on a

literature survey (Walton, G. 1951. "Survey of Literature Relating to Infant Methemoglobinemia Due to Nitrate Contaminated Water." *Am. J. Pub. Health* 41:986-996). Walton observed that while serious methemoglobinemia, including death, was observed in infants exposed to high levels of nitrate, no cases were observed in infants exposed to 10 mg/l or less of nitrate (i.e., a NOAEL). The proposed standard is somewhat more stringent than the current MCL of 10 mg/l because it includes an MCL for nitrite (the more toxic form) and a joint standard of 10 mg/l for nitrate and nitrite.

EPA has reviewed the literature and concluded that an MCLG for nitrate of 10 mg/l is at a level at which there would be no adverse effects and which would allow an adequate margin of safety, because the available studies provide no evidence that any adverse health effect is seen at nitrate levels of 10 mg/l or below (EPA, Health Criteria Document on Nitrate/Nitrite). Further, this conclusion is supported by the separate analysis of others who have reviewed the current literature. With respect to methemoglobinemia and teratogenic effects and reproductive effects, Fan et al. (Fan, A.C., Willhite, C.C., Book, S.A. 1987. "Evaluation of the Nitrate Drinking Water Standard with Reference to Infant Methemoglobinemia and Potential Reproductive Toxicity." *Regulatory Toxicology and Pharmacology* 7:135-148) have recently reviewed the current literature and concluded that "10 ppm nitrate-nitrogen, adequately protects the very young from nitrate-induced toxicity, both pre- and postnatally."

When an MCLG is derived based on human data, EPA normally applies an uncertainty factor of 10 (for intraspecies variability) to ensure that the MCLG is adequately protective of the most sensitive members of the population. However, in this case, the Agency does not believe that an uncertainty factor is warranted because (1) the standard is designed to protect the most sensitive population (i.e., infants), (2) the studies covered a large number of subjects, and (3) the current standard has been in effect in this country for decades with no cases of methemoglobinemia reported from public drinking water supplies. Because there is considerably less data available on nitrite and due to the demonstrated direct toxicity of this chemical, EPA is applying an uncertainty factor of 10 to derive the proposed MCLG for nitrite of 1 mg/l.

EPA is also proposing a joint standard of 10 mg/l: the sum of the concentration of nitrate and nitrite cannot exceed 10

mg/l. Since both nitrate and nitrite result in met Hb, it is possible that the toxicity of nitrate and nitrite may be additive. EPA is proposing the joint nitrate/nitrite standard in order to account for the possible additive toxicity of these two chemicals and also to protect against the deterioration of the drinking water quality, since the presence of nitrite in water is indicative of water contaminated with sewage.

The combined standard does not supplant the individual standards for nitrate and nitrite. In summary, the following MCLGs are proposed: the concentration of nitrate shall not exceed 10 mg/l (as nitrogen), the concentration of nitrite shall not exceed 1 mg/l (as nitrogen), and the sum of the concentration of nitrate and nitrite shall not exceed 10 mg/l (as nitrogen).

Science Advisory Board Comments: The Science Advisory Board (SAB, 1987) commented on the proposed nitrate/nitrite standard based on a review of the Draft Health Criteria Document on Nitrate/Nitrite. A summary of the SAB comments and the EPA response follows.

a. The SAB concluded that "the Agency can appropriately set a proposed health advisory level on the basis of methemoglobin formation."

EPA Response: EPA agrees since the Agency believes that methemoglobin is the appropriate basis for the standard.

b. The SAB recommended that a more extensive analysis should be provided of Walton (1951) which was one of the bases of the standard.

EPA Response: As noted above, Walton (1951) was the basis for the Public Health Standard relied upon by EPA when it adopted the current 10 mg/l nitrate standard. In addition, substantial new information since the Walton study was considered in the EPA Nitrate/Nitrite Health Criteria Document (EPA, 1987). This information further supports EPA's conclusion that a 10 mg/l nitrate standard is protective.

c. The SAB recommended that EPA should place the total exposure to nitrate and nitrite (i.e., contributions from water, and diet, etc.) into better perspective.

EPA Response: EPA has analyzed nitrate/nitrite exposure through various pathways. That analysis is described in a document entitled "Estimated National Occurrence and Exposure to Nitrate/Nitrite in Public Drinking Water Supplies". Available information indicates that adults who consume nitrate at the proposed standard of 10 mg/l would receive approximately 50% of their nitrate from drinking water and 50% from the diet.

d. The SAB noted that the margin of safety (i.e., uncertainty factor) used by EPA may not be adequate to protect "sensitive members of the population, namely, infants with gastrointestinal disease."

EPA Response: EPA believes that the standard of 10 mg/l contains an adequate margin of safety to protect sensitive members of the population, namely, infants with gastrointestinal disease. This conclusion is supported by numerous analyses of the scientific literature. For example, both the World Health Organization (Guidelines for Drinking Water and Other Supporting Information, 1984, WHO, Geneva, pg. 128-134) and the Canadian Department of Health and Welfare (Guidelines for Canadian Drinking Water Quality, Supporting Documentation, 1978, pg. 419-431, Minister of Supplies and Services, Canada, 1980) concluded that infant methemoglobinemia has not been reported where drinking water contains less than 10 mg/l nitrate.

e. The SAB noted that there is a lack of data on the reproductive and developmental effects of nitrate and nitrite.

EPA Response: While EPA believes that more data should be generated regarding reproductive and developmental effects of nitrate/nitrite in drinking water, the Agency believes sufficient data exist to conclude that developmental and reproductive effects are not evident at the 10 mg/l drinking water standard. See Fan (1987) and the EPA Nitrate/Nitrite Health Criteria Document (EPA, 1987).

f. The SAB recommended that the Office of Drinking Water should set a single public health standard for the contribution from both nitrate and nitrite.

EPA Response: EPA agrees and proposes a combined nitrate/nitrite MCLG of 10 mg/l.

g. The SAB recommended that the Office of Drinking Water present a conclusion on the current knowledge of potential impacts of nitrosated materials in drinking water.

EPA Response: As discussed elsewhere in this section, EPA believes that there is not sufficient evidence to conclude that nitrosated materials in drinking water present a cancer risk.

Public comments: Sixteen individuals or organizations commented on the MCLG proposal for nitrate/nitrite. Six commenters supported the proposed MCLG of 10 mg/l for nitrate. Another commenter contended that no adverse health effects are seen until water levels exceed 45 mg/l, and another stated that no standard should be set because there

is no data indicating that nitrate occurs at levels associated with this health risk. However, several other commenters believed that the proposed MCLG is too high, and should be reduced to a lower value (in the range of 2 to 3 mg/l) because (1) the proposed MCLG includes no margin of safety and (2) nitrate may be metabolized into carcinogenic nitroso-compounds.

EPA Response: Regarding the statement on adverse effects of nitrate at levels above 45 mg/l, the commenter apparently has failed to recognize that 45 mg/l nitrate is equivalent to 10 mg/l nitrate expressed as nitrogen. Thus, the proposed MCLG for nitrate of 10 mg/l expressed as nitrogen is identical to 45 mg/l expressed as nitrate. EPA, therefore, agrees with the commenter that adverse effects would not be seen until levels of nitrate exceed 45 mg/l (expressed as nitrate) or 10 mg/l (expressed as nitrogen).

Nitrate concentrations of 10 mg/l or greater have been detected in over 800 small, rural ground water systems. Because health effects are associated with levels of nitrate in excess of 10 mg/l, EPA disagrees with the commenter who stated that there is no data which indicates that nitrate occurs at levels associated with health risk. Furthermore, the SDWA Amendments direct EPA to promulgate drinking water regulations for nitrate and nitrite.

Regarding the two comments which stated that the proposed MCLG is set at too high a level:

(1) As previously discussed, the proposed MCLG of 10 mg/l as nitrogen contains an adequate margin of safety, as EPA has found no evidence of any cases of any adverse health effect associated with the consumption of water with 10 mg/l or less of nitrate. This is based upon an extensive review of the literature (EPA, Health Criteria Document for Nitrate/Nitrite) and decades of experience with the current nitrate standard.

(2) EPA is well aware that nitrate and nitrite present the *theoretical* possibility of an oncogenic risk, since nitrate is reduced in the human body to yield nitrite, and under suitable conditions, nitrite can react with nitrosatable compounds to form oncogenic N-nitroso compounds. However, the evidence from human studies concerning the carcinogenicity of these compounds is inconclusive. There are several studies which show an association between nitrate and gastric cancer [Hartman, 1983, "Review: Putative Mutagens and Carcinogens in Food." *Environmental Mutagenesis* 5:111-121, as cited in *Case Studies in Ground Water Quality Protection*, prepared by R. Rajagopal et

al. University of Minnesota, Duluth]. However recent epidemiology studies do not show an association [Forman, D., Al-Dabbagh, S., Doll R. 1985. "Nitrates, Nitrites and Gastric Cancer in Great Britain." *Nature*. Vol. 313. pp. 620-625; and Al-Dabbagh, S., Forman, D., Bryson, D., Stratton, L., Doll, R. 1986. "Mortality of Nitrate Fertilizer Workers." *Brit. J. Ind. Med.* 43(8): 507-515]. Forman et al. (1985) correlated the incidence of gastric cancer with the levels of salivary nitrate and nitrite in humans. Salivary nitrate is a measure of total nitrate exposure and salivary nitrite is a measure of the levels of nitrite present in the stomach. The study found that there was an inverse correlation between gastric cancer and salivary levels of nitrate and nitrite, i.e., the higher the levels of salivary nitrate and nitrite, the lower the incidence of gastric cancer. In addition, Al Dabbagh et al. (1986) observed that, in fertilizer workers, the available data did not suggest that high nitrate exposure led to gastric cancer.

Therefore, EPA does not believe there is sufficient evidence to conclude at the present time that nitrate or nitrite present a potential cancer risk through drinking water exposure. Comment is requested on this issue.

(3) Several recent studies have addressed the question of possible relationship between nitrate and developmental effects. For example, Dorsch et al., 1984 (Dorsch M.L., McMichael, A.J., et al. Congenital malformations and maternal drinking water supply in rural South Australia: a case control study. *Am J. Epidemiology*. 1984. 119. pp. 473-486) have suggested that the consumption of nitrate in drinking water may present a developmental hazard. The recent study by Arbuckle et al., 1988 (Arbuckle, T.E., Sherman, G.J., et al. Water nitrates and CNS birth defects: a population-based case-control study, available to EPA as a preprint and subsequently published March, 1988 in *Arch. Env. Health*, V. 43, No. 2, pp. 162-167) does not support the conclusions of Dorsch et al. As previously stated, Fan et al. (1987), who reviewed the work of Dorsch et al., as well as significant other data, concluded that "10 ppm nitrate-nitrogen, adequately protects the very young from nitrate-induced toxicity, both pre- and postnatally."

EPA is requesting comment on this information regarding reported potential developmental effects of nitrate and whether the proposed MCLGs provide adequate protection. Specifically EPA requests comments on the margin of safety and its adequacy to protect the public from these other potential effects.

EPA is requesting comment on whether the MCLG should be lowered.

8. **Selenium.** EPA proposed an MCLG of 0.045 mg/l for selenium in the November 1985 proposal. No new data which change the conclusions presented in that notice have become available since its publication. EPA is therefore repropounding an MCLG of 0.05 mg/l for selenium (rounded from the proposed value of 0.045 mg/l). EPA is also requesting comment on alternative MCLGs of 0.02 mg/l and 0.1 mg/l for selenium, as discussed below.

In the November 1985 proposal EPA calculated a DWEL for selenium based upon a human study which examined selenium toxicity and deficiency effects in China [Yang et al. 1983. Endemic Selenium Intoxication of Humans in China. *Amer. Jour. Clin. Nutr.* 37:872-881]. EPA used a LOAEL of 3.20 mg/day and an uncertainty factor of 15 resulting in a DWEL of 0.106 mg/l. EPA stated in the 1985 preamble that an uncertainty factor of 10 would normally apply in this situation. However, that statement was incorrect, since the Agency normally uses an uncertainty factor of 100 when deriving the MCLG based on a LOAEL from a human study. The Agency believes that use of the usual uncertainty factor is not appropriate here since, as discussed in the 1985 proposal, selenium is an essential nutrient in humans. In cases such as this, the Agency evaluates evidence of a compound's essentiality in addition to evidence on its toxicological effects in determining the MCLG. The NAS has estimated an adequate and safe level for adults at 0.05 to 0.2 mg/l. Use of the larger uncertainty factor of 100, however, would result in a level below that considered safe and adequate by the NAS (0.05 mg/day) and therefore would not adequately protect against adverse effects that may result from selenium deficiency. EPA believes that the proposed MCLG adequately balances the potential deficiency and toxicity effects of selenium. Data on human exposure was then factored in (0.125 mg/day via the diet and 0 mg/day via air), resulting in an MCLG of 0.045 mg/l.

EPA is requesting public comment on whether it would be appropriate to use a relative source contribution factor of 20 percent, instead of factoring in actual human exposure data. EPA has used FDA Market Basket Surveys and other reports on selenium intake available in the literature to determine an average selenium dietary intake of 0.125 mg/day (See the Health Criteria Document for Selenium for the references on selenium intake). Since selenium intake varies

greatly depending on dietary exposures, EPA requests public comment on whether the above selenium dietary intake is representative of actual human consumption. If public comments determine these data to be nonrepresentative of actual human consumption, EPA would factor in a relative source contribution of 20 percent from drinking water, resulting in an MCLG of 0.02 mg/l. Although this level is slightly below the NAS' safe and adequate range (0.04 mg/day vs. the NAS' level of 0.05 mg/kg/day), EPA believes it is adequate to be protective against deficiency effects.

EPA's Science Advisory Board reviewed the MCLG for selenium and suggested that the DWEL be raised to 0.16 mg/l, based upon the same calculations as were used to set the proposed MCLG, except with the application of an uncertainty factor of 10 instead of 15. Use of this uncertainty factor would result in an MCLG of 0.1 mg/l. The basis of the SAB recommendation was as follows:

(1) In the Yang *et al.* study, the LOAEL was 3.2 mg/kg/day and no lower values have been reported.

(2) An upper limit of 0.2 mg/day (as cited in the NAS report) is not supported by any of the data.

(3) A daily intake of 0.214 mg/day (EPA's DWEL multiplied by 2 liters/day) is too close to the value needed for human nutrition and too far from the lowest value at which human symptoms occur.

(4) There is little or no evidence for proposed human health effects such as cancer or teratogenic effects. Selenium is not regarded as a human carcinogen.

(5) Uncertainty factors should reflect likely beneficial effects as well as harmful effects. There is limited evidence that selenium deficiency is related to cancer and perhaps cardiovascular disease.

Public comments are requested on this approach to setting the MCLG.

Public comments: Ten individuals or organizations commented on the MCLG proposal for selenium. Six commenters agreed with EPA's proposal of an MCLG of 0.045 mg/l for selenium. Reasons cited included the essentiality of selenium, its vital role in cell metabolism, the absence of acute human toxicity and its low occurrence. One commenter stated that when selenium is detected, interactions with other inorganics (e.g., arsenic, cadmium, mercury) should be considered.

Three commenters disagreed with the proposed MCLG for selenium. One commenter stated that since selenium is an essential trace element and inhibits tumors, an MCLG that is too low

actually increases the net risk of adverse health effects. The other commenter also felt that EPA was too conservative in calculating the MCLG and recommended using an uncertainty factor of 10 (resulting in an MCLG of 0.1 mg/l). A third commenter stated that EPA should use an uncertainty factor of 100 or more, since the MCLG is based on a LOAEL from a human study and since selenium is absorbed more efficiently from water than from food.

EPA response: EPA agrees with the SAB and the commenters that it is appropriate to consider the essentiality of selenium and the other factors cited in developing the MCLG. EPA agrees that interaction between inorganic chemicals is an important consideration. However, at the present time there is not enough known about these potentially complex interrelationships to be used directly in calculating the MCLG. EPA applies uncertainty factors in part to take into account possible synergistic effects.

EPA does not believe that the MCLG is proposed at too low a level nor that it would increase the net risk of adverse health effects such as tumors. The MCLG is set to protect against the potential toxic effects of selenium and EPA believes that this level balances the essentiality of selenium with the potential toxicity of the compound. It is unknown at what levels selenium may be protective against tumors in humans and thus EPA does not believe this consideration can be quantitatively factored into calculating the MCLG.

EPA agrees that the proposed MCLG represents a conservative approach. EPA's use of an uncertainty factor of 15 is consistent with the SDWA mandate that MCLGs be set at a level protective of human health with an adequate margin of safety. EPA is soliciting public comment on whether it may be appropriate to use an uncertainty factor of 10 with selenium. As discussed above, EPA believes an uncertainty factor of 100 or more cannot be justified due to the essentiality of selenium.

G. Proposed MCLGs for Synthetic Organic Chemicals

1. **Acrylamide.** EPA proposed an MCLG of zero in the November 1985 notice for acrylamide based on carcinogenic risk and discussed the health effects and exposure data for acrylamide in detail. No additional data which change the conclusions presented in that notice have become available since its publication. EPA is therefore repropounding an MCLG of zero for acrylamide.

Public Comments: A total of 12 individuals or groups commented on the

MCLG proposal for acrylamide. Two commenters stated that the DWEL for acrylamide should be 0.175 mg/l, based on a NOAEL of 0.5 mg/kg/day, as calculated in a study by Johnson *et al.* (1984), instead of the Burek *et al.* (1980) study in which a DWEL of 0.007 mg/l was calculated.

Several commenters stated that it is inappropriate to set the MCLG at zero for several reasons. These reasons included the assertions that: (1) The carcinogenicity data are weak and classification in Group B2 is inappropriate; (2) the available data indicate that there is little or no occurrence in drinking water, and EPA's estimate of the potential levels (0.0005 mg/l) is unrealistically high; (3) if acrylamide is a carcinogen, a risk of 10^{-5} to 10^{-6} , or 0.1 to 0.01 ug/l is reasonable for regulation; (4) there is no suitable analytical method; and (5) an MCLG of zero is inconsistent with its use in water treatment and the MCLG will have serious impacts for water treatment facilities.

EPA Response: EPA has reviewed the Johnson *et al.* (1984) study (Johnson, K., Gorzinski, S., Bodner, K., Campbell, R. 1984. "Acrylamide: A Two-Year Drinking Water Chronic Toxicity—Oncogenicity Study in Fischer 344 Rats." Dow Chemical Company), which describes the results of chronic drinking water exposure to acrylamide in rats. The Agency agrees with the commenter that, based upon the evaluation of behavior, food and water consumption, body/organ weight ratio and conventional light microscopy, the NOAEL would be identified as 0.5 mg/kg/day. However, the study by Burek *et al.* (1980) (Burek, J.D., Albee, R.R., Beyer, J.E., *et al.* 1980. "Subchronic Toxicity of Acrylamide Administered to Rats in the Drinking Water Followed by Up To 144 Days of Recovery." *J. Environ. Pathol. Toxicol.* 4:157-182), which identified a NOAEL of 0.2 mg/kg/day, indicates that electron microscopic examination of peripheral nerve is a more sensitive endpoint of acrylamide neurotoxicity than is light microscopy. Therefore, since the study by Johnson *et al.* (1984) does not measure the most sensitive endpoint, that study is not appropriate for derivation of a DWEL for acrylamide. In a subsequent study, Johnson *et al.* (1985) [Johnson, K., Beyer, J., Bell, J., Schuetz, D., Gorzinski, S. 1985. "Acrylamide: A Two-Year Drinking Water Chronic Toxicity—Oncogenicity Study in Fischer 344 Rats. Electron Microscopy Portion." Dow Chemical Company] reported electron microscopic observations made during serial sacrifices at 6, 12, 18 and 24 months.

These results also identify a NOAEL of 0.5 mg/kg/day, but only for data up to and including the 12-month sacrifice; the 18 and 24 month data were judged to be indeterminate. Thus, the Burek et al. (1980) data has been used to calculate a DWEL.

EPA believes it is appropriate to establish an MCLG for acrylamide at this time; the SDWA Amendments direct EPA to promulgate a national primary drinking water regulation for acrylamide. The Agency is proposing an MCLG of zero for the reasons stated in the November notice. With regard to the specific assertions by the commenters:

(1) EPA has reviewed the carcinogenicity data on acrylamide and has concluded that the B2 classification is appropriate, as the chemical tested positive in more than one species, in more than one strain in one of the species, and by more than one exposure route.

(2) Although there are few data on the occurrence of acrylamide in drinking water, there is the potential for exposure to acrylamide as a residual monomer from polyacrylamide which is used in water treatment. Under the current voluntary drinking water additives guidance program, the maximum acceptable level of acrylamide in polyacrylamide is 0.05 percent weight by weight and the use level as a flocculant is 1 ppm. Assuming that all of the residual monomer will remain in water during flocculation, this could yield a maximum of 0.0005 mg/l acrylamide in finished water. However, levels are likely to be well below 0.0005 mg/l because chemical reactions in water of trace residues would likely reduce the levels of acrylamide. Nonetheless, in light of the potential for occurrence and the health risks posed by this carcinogen and the mandates of the SDWA Amendments, EPA is proposing national primary drinking water regulations for this contaminant.

(3) EPA is proposing the MCLGs for carcinogens at zero, for the reasons outlined in the November 1985 notice and elsewhere in this notice. This approach has been upheld by the D.C. Circuit in *NRDC v. Thomas*, *supra*.

(4) EPA agrees that there is no suitable analytical method for acrylamide; however, the availability of analytical methods is not relevant to determining the MCLG, but was considered by EPA in proposing a treatment technique for acrylamide instead of an MCL.

(5) The MCLG is a non-enforceable health goal and therefore has no impact on the use of acrylamide in the water treatment process.

2. *Alachlor*. In the November 1985 proposal, EPA proposed an MCLG of zero for alachlor based on carcinogenicity (Group B2). A detailed discussion of the adverse health effects and occurrence of alachlor is presented in that notice. No new relevant data which change the conclusions presented in that notice have become available since its publication. Therefore, EPA is repropounding an MCLG of zero for alachlor.

Public Comments: Two commenters submitted comments on the proposed MCLG for alachlor. One commenter agreed with EPA's proposal for an MCLG of zero. Another commenter stated that it was inappropriate for EPA to set an MCLG for alachlor prior to the special review by EPA's Office of Pesticide Programs (OPP) and that the Office of Drinking Water (ODW) should follow OPP's lead. If EPA determines that an MCLG must be established, then the commenter felt that a zero level is inappropriate and a minimum value of 0.005 mg/l was recommended.

EPA Response: At the present time, OPP has completed three Position Documents (PD's) (1984, 1986 and 1987) on alachlor and completed the special review on this chemical. EPA believes there is sufficient information available to justify setting an MCLG for alachlor at the present time. OPP's special review contains OPP's regulatory options on alachlor based on the same toxicological data which ODW has used to set the proposed MCLG. EPA is proposing MCLGs for carcinogens at zero, for the reasons outlined in the November 1985 notice. Since alachlor has been classified in Group B2 (probable human carcinogen), EPA is repropounding the MCLG at zero, not at 0.005 mg/l as suggested by the commenter.

3, 4, and 5. *Aldicarb, Aldicarb sulfoxide, and Aldicarb sulfone*. In the November 1985 notice, EPA proposed an MCLG of 0.009 mg/l for total aldicarb residues (the parent compound as well as the sulfoxide and sulfone residues). Discussions of the human exposure data and the health effects of aldicarb and its metabolites are presented in the November 1985 proposal. This notice will discuss only the new data and conclusions that have been revised since publication of that notice.

In the November 1985 proposal, EPA calculated a DWEL for aldicarb based upon a study in which rats were administered aldicarb sulfoxide and aldicarb sulfone in the diet for periods of 3 to 6 months (C.S. Weil and C.P. Carpenter, 1968a and b. Temik sulfoxide, Temik sulfone. Results of Feeding in the Diet of Rats for Six Months and Dogs for Three Months.

Mellon Institute Report 31-141 and 31-142. EPA Pesticide Petition No. 9F0798). A NOAEL of 0.125 mg/kg/day was determined based upon a lack of significant decreases in cholinesterase activity for aldicarb sulfoxide. Applying an uncertainty factor of 100 and assuming consumption of 2 liters of water per day resulted in a DWEL of 0.04 mg/l (rounded from 0.044).

The MCLG in the November 1985 notice was proposed for total aldicarb, since the residues of aldicarb found most often in water samples are the sulfoxide and the sulfone. Toxicologically, the MCLG was calculated based upon studies on aldicarb sulfoxide since the sulfoxide is slightly more potent than the parent compound and significantly more potent than the sulfone as an inhibitor of cholinesterase.

In this notice, EPA is proposing separate MCLGs for each individual compound. EPA is proposing that the same study which was used as the basis for the MCLG in the November 1985 notice be used as the basis for the proposed MCLG for aldicarb and aldicarb sulfoxide. The MCLG for aldicarb is proposed at 0.01 mg/l and the MCLG for aldicarb sulfoxide is also proposed at 0.01 mg/l, rounded off from the value of 0.009 mg/l which was proposed in November. There is good evidence (based upon acute toxicity studies) that the toxicity of aldicarb is very similar to that of aldicarb sulfoxide. In addition, it is likely that the effects of the parent compound are due to the sulfoxide. Thus, EPA believes that the study used in the November 1985 notice is an appropriate basis for the MCLG for both aldicarb and aldicarb sulfoxide.

EPA is relying on the same study to set the MCLG for aldicarb sulfone as is used to set the proposed MCLGs for aldicarb and aldicarb sulfoxide. The data for aldicarb sulfone from this study indicated a NOAEL of 0.6 mg/kg/day based upon cholinesterase inhibition. Based on this NOAEL, a DWEL of 0.2 mg/l (rounded from 0.21 mg/l) and an MCLG of 0.04 mg/l was calculated for aldicarb sulfone.

EPA is requesting comment on whether a single MCLG could be set for total aldicarb residues. This MCLG could be set based upon the most toxic component of the mixture. In a short-term study [Mirro et al. 1982. "Aldicarb Sulfone: Aldicarb Sulfoxide, Twenty-nine Day Water Inclusion Study Rats." Mellon Inst. Report #45-18], a 1:1 mixture of aldicarb sulfoxide and aldicarb sulfone in the drinking water of young rats for 8-29 days resulted in a

statistically significant reduction in cholinesterase activity in brain, plasma and red blood cells in both sexes at 1.8 mg/kg/day and in red blood cells in males at 0.5 mg/kg/day at the end of the study period; however, no effects were noted at 0.12 mg/kg/day or below. This NOAEL, 0.12 mg/kg/day, is the same as that derived for aldicarb sulfoxide alone, although the intensity of cholinesterase inhibition with the 1:1 mixture at doses higher than 0.12 mg/

kg/day is lower than the level of inhibition noted at comparable doses of aldicarb sulfoxide alone. Thus, it appears that the effect levels for these compounds in a 1:1 mixture reflect the inhibitory activity of the aldicarb sulfoxide portion of the mixture. Thus, for mixtures of this chemical and its metabolites, there are data which support basing an MCLG for total aldicarb residues upon the most toxic component (i.e., aldicarb sulfoxide).

Thus, such an MCLG for "total aldicarb" would be set at 0.01 mg/l.

EPA is also requesting comment on whether an alternate approach could be used to set an MCLG for aldicarb mixtures. One approach could be to base the MCLG upon a fractionation of the total mixture depending upon the percentage components of the mixture, ensuring that each individual component did not exceed its individual MCLG. This would be calculated as follows:

$$\text{MCLG for Total Aldicarb} = \frac{\text{Aldicarb (measured)}}{0.01 \text{ mg/l}} + \frac{\text{Aldicarb sulfoxide (measured)}}{0.01 \text{ mg/l}} + \frac{\text{Aldicarb sulfone (measured)}}{0.04 \text{ mg/l}} < 1$$

Public comments: Six individuals or organizations provided comments on the MCLG proposal for aldicarb. One commenter agreed with EPA that the only acute toxic effect of aldicarb is rapid and reversible inhibition of cholinesterase.

One commenter agreed that an MCLG should be established for aldicarb but felt that a separate MCLG should be proposed for aldicarb sulfone. The reasons cited were that toxicity data on aldicarb and aldicarb sulfoxide are inapplicable to aldicarb sulfone, adequate analytical methods exist to distinguish between the three residues in water and EPA's OPP requires separate food tolerance regulations for aldicarb and aldicarb sulfone.

One commenter stated that aldicarb residues should not be regulated because of the impractical test method. Another commenter stated that analytical methods are not readily available for aldicarb and a health advisory (instead of an MCLG) should be set for aldicarb.

One commenter agreed with EPA in the choice of the NOAEL for aldicarb and aldicarb sulfoxide, but disagreed with the choice of the uncertainty factor. This commenter felt that an uncertainty factor of no less than 10 and no more than 40 for aldicarb and aldicarb sulfoxide was appropriate, based on OPP's historical use of uncertainty factors. For aldicarb sulfone, the commenter felt that an uncertainty factor of 10 was appropriate.

One commenter agreed with EPA's decision to propose an MCLG that is protective of the 70-kg adult, while two commenters stated that by basing the MCLG on the 10-kg child, the 70-kg adult would also be protected.

EPA response: EPA agrees that a separate MCLG should be established

for aldicarb sulfone and has proposed an MCLG of 0.04 mg/l for this compound. A discussion of the analytical method for aldicarb and its metabolites is contained in Section IV of this notice.

EPA's Risk Assessment Forum has developed Agency policy on the use of uncertainty factors for data describing cholinesterase inhibition as the most sensitive endpoint of toxicity. OPP and ODW both follow the same policy in the use of an uncertainty factor of 100 with cholinesterase inhibition in the rat studies for aldicarb and its metabolites, and an uncertainty factor of 10 is applied to human data with cholinesterase inhibition. In the case of aldicarb, similar MCLG values were obtained when the uncertainty factors of 10 and 100 were applied, respectively, to the six month rat study and the acute human exposure study (NAS, 1977). EPA believes that applying a lesser uncertainty factor to animal data would not provide an adequate margin of safety in light of the potent nature of the anticholinesterase effect and the steepness of the dose-response curve for this chemical as well as human data discussed by the NAS in 1977.

EPA believes that the uncertainty factor used in the calculation of the DWEL and the 20 percent relative source contribution would account for any difference in sensitivity and thus the MCLG would be adequately protective of the child as well. Public comments are requested on using the 70-kg adult rather than the 10-kg child as the basis for the MCLG.

6. **Atrazine.** EPA did not propose an MCLG for atrazine in the November notice due to limited toxicological data on the chemical. However, since that time further studies have been carried out and EPA believes there are now

sufficient data upon which to base an MCLG for atrazine. EPA is proposing an MCLG of 0.003 mg/l for atrazine, based upon an evaluation of non-carcinogenic effects and a classification of the compound in Group C—possible human carcinogen.

The proposed MCLG is based upon non-carcinogenic effects in a one-year feeding study in dogs (Ciba-Geigy, 1987. Atrazine Technical 52-Week Oral Feeding in Dogs. Study No. 852008 and Pathology Report No. 7048. MRID 40313-01). In this study, five-month old beagle dogs were fed atrazine at the following concentrations: 15, 150, and 1,000 ppm (corresponding to 0.48, 4.97, and 33.65 mg/kg/day). A NOAEL of 0.48 mg/kg/day was identified, based upon the finding of discrete myocardial degeneration at the highest dose level and several findings at the 4.97 mg/kg/day dose level which suggested a trend toward the development of the cardiac pathology seen at the higher dose. An uncertainty factor of 100 was applied (consistent with the guidelines for use with a NOAEL from an animal study), and adjusted for the consumption of 2 liters of water per day for a 70-kg adult, resulting in a DWEL of 0.2 mg/l (rounded from 0.168 mg/l).

A preliminary report submitted by Ciba-Geigy Corporation (previously referenced) in support of atrazine registration indicated that atrazine may be carcinogenic. Preliminary summary incidence information (1-year interim report) on the histopathological findings of their 2-year oncogenicity study of atrazine in Sprague-Dawley rats indicated increased numbers of tumors in the mammary glands of female rats. Also, the completed study reflected a statistically significant dose-related increase in mammary tumors. A paper

by Ciba-Geigy (1987) confirmed the initial findings.

A study by Innes et al. (1969, "Bioassay of Pesticides and Industrial Chemicals for Tumorigenicity in Mice: A Preliminary Note," J. Natl. Cancer Inst. 42:1101-1114) did not show carcinogenic effects for atrazine. In this study, the carcinogenicity of 120 test compounds, including atrazine in mice was investigated. A dose of 21.4 mg/kg was administered by gavage to mice of both sexes from age 7 to 28 days. After weaning at four weeks, this dose level was maintained by administering 82 ppm atrazine in the diet for 18 months. The incidence of hepatomas, pulmonary tumors, lymphomas and total tumors in atrazine-treated mice was not significantly different from the controls. Recently a 90 week mouse oncogenicity study by Ciba-Geigy (1987) was submitted to the Agency. This study is also negative for oncogenicity.

EPA has classified atrazine in Group C (possible human carcinogen) based upon the results of the Ciba-Geigy (1986) study which show evidence of carcinogenicity of atrazine in the female rat. This evidence supports a Group C classification based on EPA's cancer risk guidelines, i.e., limited evidence of carcinogenicity based on studies involving a single species, strain, or experiment (see 52 FR 33992).

An MCLG of 0.003 mg/l (rounded from 0.0034) was determined by applying an additional uncertainty factor of 10 to the DWEL, to account for the classification of atrazine in Group C and factoring in an assumed 20% contribution from drinking water, since adequate occurrence data are not available.

EPA requests comment on the Group C classification for atrazine and the proposed MCLG.

Public comments: No public comments were received on atrazine in the November 1985 notice.

7. Carbofuran. EPA proposed an MCLG of 0.036 mg/l for carbofuran in the November 1985 Federal Register notice. This was based upon a one-year dietary study in dogs in which a NOAEL of 0.50 mg/kg/day was identified, considering the absence of a biologically significant depression of cholinesterase activity or reproductive effect in the males. Using an uncertainty factor of 100, a DWEL of 0.2 mg/l (rounded from 0.175 mg/l) was calculated. No new relevant data that would change the conclusions presented in the November notice have become available since its publication. EPA is, therefore, repropounding the MCLG at 0.04 mg/l (rounded from 0.035 mg/l).

Public comments: Six individuals or organizations commented on the MCLG

proposal for carbofuran. One commenter stated that EPA should consider the metabolites of carbofuran as well as the parent compound itself in developing the MCLG, noting that toxicological exposure is the result of a chemical metabolized in the body. Another commenter disagreed with EPA's statement that carbofuran may result in immune effects, stating that the evidence on this point is questionable.

Four commenters stated that carbofuran should not be regulated because there is little or no occurrence in drinking water. Two commenters felt that a health advisory should be issued instead, until further occurrence information is available. One commenter stated that the MCLG should be calculated for the 10-kg child, since the endpoint of toxicity is an acute phenomena.

EPA response: The MCLG for carbofuran is the result of the evaluation of all available toxicological data for carbofuran and its metabolites. Relatively few data are available in which the metabolites were directly tested. However, studies carried out on the parent compound inherently account for the metabolites, since the parent compound is metabolized in the test animal and exhibits toxicity based upon its metabolized form. Thus, an MCLG based on data from the parent compound is adequately protective for the adverse effects due to the metabolites as well.

Studies by Street and Sharma (1975) and Barnett et al. (1980) reported some changes in the immune system that raise questions on the potential for carbofuran to cause adverse effects on this system. EPA believes further research in this area is needed before any conclusions can be made on the effect of this chemical on this toxicological endpoint.

EPA agrees that occurrence of carbofuran is low in drinking water, but believes it is appropriate to set an MCLG based on its adverse health effects and the potential for occurrence in drinking water. In addition, the SDWA Amendments of 1986 mandate that a MCLG and a national primary drinking water standard be set for carbofuran. EPA has based the MCLG on the NOAEL from a one-year dietary study with dogs; the endpoints of toxicity in this study were cholinesterase inhibition and testicular degeneration. With the addition of an uncertainty factor of 100 and a relative source contribution of 20 percent, the MCLG is considered to be adequately protective for the 10-kg child. Further, the proposed MCLG (40 ug/l) is more protective to the child than the

computed child value based on the acute human exposure study (50 ug/l).

8. Chlordane. EPA proposed an MCLG of zero for chlordane based on sufficient evidence of carcinogenicity in animals (Group B2) in the November 1985 proposal. No new data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropounding an MCLG of zero for chlordane.

EPA has received new data regarding the toxicity of chlordane. While the proposed MCLG of zero is based on the carcinogenicity of this contaminant, the new toxicity data are presented to provide information on the full range of adverse effects of chlordane. EPA calculated a DWEL of 0.03 mg/l for chlordane in the November proposal, based upon a two-year feeding study in dogs. The results of a chronic rat dietary study (Yonemura et al., 1983; Thirty-month Chronic Toxicity and Tumorigenicity Test in Rats by Chlordane; submitted to OPP) were used to calculate a revised DWEL. This study was conducted in 1983 but was not submitted to the Agency until 1985. In this study, F344 rats were fed technical chlordane at dietary levels of 0, 1, 5 or 25 ppm for 130 weeks. Regional hypertrophy was observed in female rats at a dosage of 0.273 mg/kg/day. A NOAEL of 0.055 mg/kg/day was identified based on liver hypertrophy. Applying an uncertainty factor of 1,000, (100 for the inter and intraspecies difference and ten for the lack of a second chronic toxicity study-reproductive study), a revised DWEL of 0.002 mg/l has been derived, assuming consumption of 2 liters of water per day by a 70-kg adult. Since chlordane has sufficient evidence of carcinogenicity, this DWEL has not been used to set the MCLG.

Public Comments: No public comments were received on the proposed MCLG for chlordane.

9. Dibromochloropropane (DBCP). EPA proposed an MCLG of zero for DBCP based on sufficient evidence of carcinogenicity in animals (Group B2) in the November 1985 Federal Register notice. No new data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropounding an MCLG of zero for DBCP.

Public Comments: Five individuals or organizations commented on the MCLG proposal for DBCP. Two commenters submitted an alternate risk assessment for DBCP. A maximum likelihood risk of cancer of 4.6×10^{-6} for lifetime exposure to drinking water containing 0.1 mg/l

was calculated from the geometric mean of five risk estimates using different risk assessment models. Although the commenters and EPA used the same chronic study to develop risk estimates, different mathematical modeling was used in the risk assessments. The commenters urged EPA to set the MCLG at 0.1 mg/l based on their risk assessment. In addition, they stated that additional analysis of metabolites is needed and that the available epidemiologic data do not support an association between DBCP exposure and tumor formation in humans.

One commenter asserted that the occurrence information provided in the Federal Register notice was not adequate, since dates and locations of sampling were not described nor were detection limits or measured values given.

One commenter agreed with the proposal. Another commenter stated that there appears to be sufficient preliminary data available to warrant consideration of DBCP for regulation, but that additional research is needed before promulgation of an MCLG/MCL for this compound.

EPA response: EPA cannot adopt the commenter's revised risk assessment. There is no biostatistical basis for this risk assessment procedure, and the probit model used as one of the 5 models skews the risk estimate to an unreasonably low value. Also, EPA believes the 95% upper bound to be a more appropriate normalizing method than maximum likelihood estimates. However, EPA acknowledges that, as noted by the commenter, additional analysis of metabolites would strengthen the unit risk value. However, EPA does not believe that this analysis is essential to setting a risk number of DBCP. By EPA's risk assessment procedure, an exposure of 0.1 mg/l will result in an upper bound risk value of 4×10^{-3} . Furthermore, as EPA has explained in the November 1985 notice and elsewhere in this notice, the Agency has decided to establish a zero MCLG for contaminants, such as carcinogens, for which no threshold for adverse effects has been identified (*NRDC v. Thomas*, 824 F.2d 1211 (D.C. Cir. 1987)).

Regarding the epidemiology data on DBCP, EPA believes that the epidemiology data base is inadequate to refute or demonstrate that DBCP causes tumors in humans. EPA believes there are sufficient data to conclude that DBCP is carcinogenic in animals since the compound has been shown to be carcinogenic in both rats and mice. EPA therefore has classified DBCP in Group B2: probable human carcinogen.

Regarding the occurrence data presented by EPA, the Federal Register notice was intended to present only a summary of the data. A detailed presentation of the data may be found in the occurrence support document, which is available in the public docket.

EPA disagrees that the health data are currently inadequate to establish an MCLG. DBCP has been shown to exhibit acute and chronic toxic effects in animal studies, reproductive effects in humans and has also been shown to be carcinogenic in animal studies.

10. *o*-Dichlorobenzene. In the November 1985 proposal, EPA proposed an MCLG of 0.62 mg/l for *o*-dichlorobenzene based on the occurrence of liver and kidney lesions and porphyria in rats. EPA discussed the relevant toxicologic data in detail in that notice. EPA also discussed the lack of adequate toxicological data for *m*-dichlorobenzene, and declined at that time to propose an MCLG for the meta isomer. Instead, EPA sought data and comments on the appropriateness of setting a standard for *m*-dichlorobenzene based on the toxicity data from *o*-dichlorobenzene. No new relevant data which change the conclusions presented in that notice have become available since its publication. EPA is therefore repropounding the MCLG of 0.6 mg/l for *o*-dichlorobenzene (rounded from the proposed value of 0.62 mg/l), and is not proposing an MCLG for *m*-dichlorobenzene.

Public comments: Four individuals or organizations submitted comments on EPA's proposed actions on *o*- and *m*-dichlorobenzene. One commenter agreed with the proposal. One commenter believed that no MCLG should be developed for *o*-dichlorobenzene because it is infrequently detected in drinking water, and when it is detected, the levels are well below the DWEL. Another commenter stated that it is appropriate to base an MCLG for *m*-dichlorobenzene on the data on the ortho isomer, but as an interim step only. Another commenter disagreed with basing an MCLG for *m*-dichlorobenzene on the data on the ortho isomer, because the meta isomer is rarely found in drinking water and because there are few data relating the meta and ortho isomers to one another.

EPA response: EPA agrees that *o*-dichlorobenzene is infrequently detected in drinking water supplies and meta even less so. However, EPA is required to establish a standard for this compound under the provisions of the 1986 amendments to the Safe Drinking

Water Act. In addition, *o*-dichlorobenzene has been detected in wastewater and hazardous waste and thus the potential exists for drinking water contamination. The infrequent occurrence has been taken into account in the proposed monitoring requirements (see Section VI). EPA is not proposing an MCLG for *m*-dichlorobenzene at the present time because of the lack of data, but may develop a standard in the future as data become available.

11 and 12. *cis*-1,2-Dichloroethylene and *trans*-1,2-Dichloroethylene. EPA proposed an MCLG of 0.07 mg/l for both *cis*- and *trans*-1,2-dichloroethylene in the November 1985 proposal based upon a two-year study on 1,1-dichloroethylene in which a DWEL of 0.4 mg/l (rounded from 0.35 mg/l) was determined. At that time, compound-specific data were not available for either *cis*- or *trans*-1,2-dichloroethylene, and thus data on 1,1-dichloroethylene were used to set the MCLGs for both compounds. Since the time of the proposal, compound-specific data on *trans*-1,2-dichloroethylene have become available, and this data has been used to determine the DWEL and MCLG for *trans*-1,2-dichloroethylene. No new data are available on *cis*-1,2-dichloroethylene, and thus the MCLG is repropounded at 0.07 mg/l.

The MCLG for *trans*-1,2-dichloroethylene is based on a study by Barnes et al. (Barnes et al. 1985. Toxicology of *trans*-1,2-Dichloroethylene in the Mouse. *Drug Chem. Toxicol.* 8:373-392) in which CD-1 mice (15-24/sex/dose) were given *trans*-1,2-dichloroethylene for 90 days in their drinking water at levels of 17, 175 or 387 mg/kg/day for males and 23, 224 or 452 mg/kg/day for females. There were no changes in fluid consumption, body weight gain or gross pathology among the experimental groups. In male mice, significant increases in serum alkaline phosphatase were noted at the two highest dose levels. In females, the thymus weight, calculated as percent body weight, was significantly depressed at the 224 and 452 mg/kg/day doses, while the lung weight was decreased only at the highest dose. A NOAEL of 17 mg/kg/day in male mice was identified based on normal serum chemistry values in male mice. A DWEL of 0.6 mg/l was derived using 17 mg/kg/day as the NOAEL and an uncertainty factor of 1,000, based upon the use of a NOAEL from an animal study which is of less-than-lifetime duration. Factoring in a 20 percent relative source contribution for drinking water results in an MCLG of 0.1 mg/l for *trans*-1,2-dichloroethylene.

EPA requests comment on whether the MCLG for cis-1,2-dichloroethylene should be based upon the same data used to set the MCLG for trans-1,2-dichloroethylene. This would result in an MCLG of 0.1 mg/l for cis-1,2-dichloroethylene, instead of the value of 0.07 mg/l which is being proposed.

Public comments: Five individuals or organizations commented on the MCLG proposal for cis- and trans-1,2-dichloroethylene. One commenter agreed with the proposal. One commenter stated that an MCLG should not be established for these compounds because there are no data to show that exposure occurs or will occur above safe levels.

One commenter stated that it may be sufficient on an interim basis to employ data on the toxicity of 1,1-dichloroethylene to derive an MCLG for cis- and trans-1,2-dichloroethylene, but that a concerted effort should be made to develop data for these isomers that will be more reliable for derivation of MCLG values.

One commenter stated that it is not reasonable to compare the health effects of two compounds with similar chemical structure in the absence of chemical-specific toxicity data. Another commenter felt that before establishing an MCLG of 0.07 mg/l for 1,2-dichloroethylenes, EPA should assure that biodegradation will not produce vinyl chloride at concentrations greater than 0.001 mg/l.

EPA Response: The Ground Water Supply Survey detected 1,2-dichloroethylenes in 3.4 percent of the random samples. Thus, EPA believes that there is sufficient occurrence to warrant regulation for the 1,2-dichloroethylenes. (See Section VI). In addition, the SDWA Amendments of 1986 require that a drinking water regulation be set for cis- and trans-1,2-dichloroethylene.

EPA agrees that chemical-specific data, when available, should be used to develop the MCLGs. Since EPA has recently received data on the toxicity of trans-1,2-dichloroethylene following exposure by the oral route, these data have been used to set the MCLG for trans-1,2-dichloroethylene.

EPA believes that basing the MCLG for a compound on the health effects of compounds with similar chemical structure is appropriate when there is insufficient data on the compound of concern and when available data indicate that the compounds exhibit similar toxicity characteristics. There are data from shorter term exposures on all three dichloroethylene isomers suggesting that they have similar toxicity in the qualitative sense, i.e.,

they affect the same general organ systems. In light of this data reflecting similar structure activity relationships, EPA believes it is reasonable to use data on 1,1-dichloroethylene until such time as isomer-specific data becomes available on cis-1,2-dichloroethylene.

EPA does not believe that the MCLG for the 1,2-dichloroethylenes should be based on their conversion to vinyl chloride. A drinking water MCL has been set for vinyl chloride at 0.002 mg/l (see 52 FR 25690); the vinyl chloride MCL will adequately protect the public against any vinyl chloride which may be produced through the biodegradation of the 1,2-dichloroethylenes. As outlined in the vinyl chloride rule, water supplies must test for vinyl chloride whenever the 1,2-dichloroethylenes are found. The 1,2-dichloroethylenes have been shown to exhibit toxic effects in their own right and thus, the MCLG for this compound must adequately protect against these effects.

13. 1,2-Dichloropropane. EPA proposed an MCLG of 0.006 mg/l for 1,2-dichloropropane in the November 1985 proposal. In that proposal, 1,2-dichloropropane was classified in EPA's Group C, and the MCLG was set at a non-zero level based on the 10^{-5} carcinogenic risk level. Discussion of the available human exposure data and health effects of 1,2-dichloropropane were presented in the November 1985 proposal. Based on data which has become available since the 1985 proposal, EPA is revising the carcinogenic classification of this contaminant to Group B2, probable human carcinogen, and is therefore repropounding an MCLG of zero for 1,2-dichloropropane. In this notice, the discussion is confined to the conclusion and justification for EPA's revision of the carcinogenic classification for the compound.

The final NTP technical report (1986) on the toxicology and carcinogenesis studies of 1,2-dichloropropane in F344/N rats and B6C3F₁ mice is available for the carcinogenicity evaluation of 1,2-dichloropropane. The report was not available at the time of the November 1985 notice. The results of the bioassay showed a statistically significant increased incidence of hepatocellular neoplasms, primarily adenomas in male and female B6C3F₁ mice. The frequency of liver carcinomas alone was not significant for males or females but there was an increase in tumors in both sexes (male: Control, 11/50; low dose, 16/50; high dose, 16/50; female: Control, 1/50; low dose, 3/50; high dose, 4/50). There was no statistically significant increase in tumors of any specific organ in F344 rats; however, there was a dose-

related trend (by life table analysis) on mammary adenocarcinomas in the female rats. The increased adenocarcinoma incidence in the female rat is considered to be significant since the F344 rat has a relatively low background occurrence rate for these tumors. Also, high mortality during the course of the bioassay may have precluded higher incidence observations (i.e., some animals that died may have developed tumors had they survived for the duration of the study).

EPA believes that the results of the bioassay lend support for a Group B2 classification for 1,2-dichloropropane by virtue of the positive response in mice together with the dose related trend in mammary adenocarcinomas in the female rat. Other considerations are that 1,2-dichloropropane: (1) Has shown positive mutagenic activity in short-term tests, and (2) is metabolized to 1,2-epoxypropane and chloroacetaldehyde. 1,2-Epoxypropane is thought to have carcinogenic potential since other epoxy compounds are known carcinogens. In addition, 1,2-dichloropropane has a structural relation to compounds with known carcinogenic activity in animal test systems (1,2-dichloroethane, 1,2-dibromoethane, and 1,2-dibromo-3-chloropropane). EPA believes that considering the total weight of evidence, 1,2-dichloropropane should be classified in Group B2.

Comment is requested on this proposed classification. If after consideration of public comments and further evaluation of the data EPA decided to classify 1,2-dichloropropane in Group C, the MCLG would be 0.006 mg/l, as proposed in the November 1985 notice.

Public comments: Seven individuals or organizations commented on the proposed MCLG for 1,2-dichloropropane. Several commenters opposed development of an MCLG for 1,2-dichloropropane. The major objection was that the occurrence of 1,2-dichloropropane in the environment is very low and decreasing, and the environmental levels do not result in exposure to a significant portion of the population.

Three commenters opposed the MCLG because they believed the toxicology studies to be weak. The commenters also challenged the classification of this contaminant in Group C on the grounds that the NTP bioassay had not been validated, that the mouse tumor data alone was inadequate to support this classification, that the relevance of mouse liver tumors to carcinogenic risk in humans is unclear, and the cancer frequency in the concurrent controls

was higher than in historical controls. One commenter agreed that there are inadequate data to establish a DWEL.

EPA response: While EPA agrees that the environmental occurrence of 1,2-dichloropropane is likely to be limited, it has been found in wells in California and New York, in one hazardous waste site and in the ambient air in several cities. EPA believes the occurrence is sufficient to warrant an MCLG for the compound. In addition, the 1986 Amendments to the SDWA require that an MCLG be set for 1,2-dichloropropane.

EPA believes that the data are adequate to form the basis for an MCLG and to support a carcinogenicity classification of Group B2. The final report from the NTP bioassay has been peer reviewed and audited by NTP, and under the conditions of the study, 1,2-dichloropropane was considered to be carcinogenic to male and female mice, although the effect in rats was equivocal. EPA considers mouse liver tumors to be sufficient evidence of carcinogenicity (see the EPA Guidelines for Carcinogenic Risk Assessment (51 FR 33992)) and thus EPA disagrees with the commenter regarding the relevance of mouse liver tumors. Regarding the cancer frequency in the controls, the NTP study has been peer reviewed and audited and found to be adequate. The cancer frequency in the controls does not invalidate the results.

14. **2,4-D.** EPA proposed an MCLG of 0.07 mg/l for 2,4-D in the November 1985 proposal, based on adverse effects on the liver and kidney in test animals. EPA based this MCLG on a NOAEL of 1 mg/kg/day, a safety factor of 100, and the assumption that a 70 kg adult consumes 2 liters of water per day. EPA also assumed that 20% of total exposure to 2,4-D would be from drinking water. No new relevant data which change EPA's conclusions have become available since publication of that notice. EPA is, therefore, repropose an MCLG of 0.07 mg/l for 2,4-D.

EPA is also considering adopting an MCLG of 0.02 mg/l for 2,4-D. This is based upon the same study as used to calculate the proposed MCLG, with the application of an additional uncertainty factor of 3 to the calculations. This uncertainty factor would be applied to account for the fact that supporting long-term data in dogs are not available for 2,4-D.

Public Comments: Five individuals or organizations submitted comments on EPA's proposed MCLG for 2,4-D. One commenter requested that EPA include more details on the analytical methods for 2,4-D in the Federal Register. One commenter disagreed with EPA's human exposure assessment, citing very low

occurrences in air and food, and low occurrence in drinking water. This commenter stated that most levels of 2,4-D in drinking water are at or below the detection limit and thus it was not appropriate to use a 20 percent drinking water contribution for 2,4-D.

Two commenters stated that an MCLG should not be established for 2,4-D because the health effects data are too weak, and one commenter stated that establishing an MCLG should be postponed until ongoing toxicity studies are completed. These commenters stated that studies other than those used by EPA should be relied upon in developing the MCLG, and that the estimated relative source contribution of 20% estimated by EPA in the November 1985 notice was inappropriate because air and food are not significant exposure sources.

EPA response: EPA has included a more detailed discussion of the analytical methods for 2,4-D in Section IV of this notice. Regarding drinking water exposure to 2,4-D, EPA agrees that 2,4-D has only been detected at very low levels in drinking water supplies. In the absence of reliable data to the contrary, EPA conservatively estimates that drinking water might contribute 20% to total exposure. EPA has examined the occurrence data presented by the commenter, but believes they are insufficient to estimate the relative source contribution and thus believes it is appropriate to use a 20% estimate for exposure.

EPA believes that the available toxicity data on 2,4-D are adequate to form the basis of a regulation for the reasons outlined in the November 1985 notice. Four human studies cited by the commenter as a more appropriate basis for the MCLG are not valid for this purpose. Two were designed as metabolism and fate studies and did not (i.e., by design) provide adequate toxicity information. Another study used only one subject, and the fourth study was not useful because exposure levels were not known.

15. **Epichlorohydrin.** EPA proposed an MCLG of zero for epichlorohydrin based on its carcinogenic potential in humans in the November 1985 notice. EPA has classified epichlorohydrin in Group B2: probable human carcinogen, based on positive results in several carcinogenicity bioassays with rats exposed to epichlorohydrin via multiple routes of administration. Exposure by ingestion, either via gavage or drinking water, resulted in tumors of the forestomach and exposures via inhalation resulted in tumors of the nasal cavities. No new relevant data which change EPA's conclusions have

become available since publication of that notice. EPA is therefore repropose an MCLG of zero for epichlorohydrin.

Public comment: Eight individuals or organizations commented on EPA's proposed MCLG for epichlorohydrin. One commenter provided additional information on health effects and metabolism of epichlorohydrin, including data indicating that oxalic acid is not a likely metabolite of epichlorohydrin, that epichlorohydrin is rapidly absorbed, metabolized and excreted when given orally, and that the available data on central nervous system effects are from Soviet studies which lack detail. This commenter asserted that while epichlorohydrin poses risks to humans, it is not possible to quantitate the risks at this time.

Several other commenters disagreed with EPA's decision to establish an MCLG for epichlorohydrin, stating that exposure through drinking water is low, even though epichlorohydrin-based resins are used in drinking water treatment. Additional reasons cited by the commenters were that analysis for epichlorohydrin is difficult and that the regulation would have an adverse economic impact.

One other commenter disagreed that there is an adequate basis for the DWEL, and disagreed with the basis for the carcinogenicity risk calculations, urging EPA to rely on the study by [Wester et al. [Wester, P.W., van der Heiden, C.A., Bisschop, A., and van Esch, G.J. 1985. "Carcinogenicity Study with Epichlorohydrin (CEP) by Gavage in Rats." *Toxicol.* 36:325-329] as the basis for the carcinogenic risk calculations rather than that by Konishi et al. [Konishi, T., Kawabata, A., Denda, A., et al. 1980. "Forestomach Tumors Induced by Orally Administered Epichlorohydrin in Male Wistar Rats." *Gann.* 71:922-933], and suggested that EPA use a risk level of 10^{-4} as the basis for the MCLG.

EPA response: EPA disagrees with the commenter that oxalic acid is not a likely metabolite of epichlorohydrin. EPA has relied on a study by the same laboratory as that cited by the commenter, indicating that oxalic acid is responsible for the renal toxicity of epichlorohydrin. The data submitted on absorption and metabolism of epichlorohydrin will be incorporated into the Health Criteria Document. EPA agrees that the Soviet literature was incomplete, and the studies are included in the Criteria Document for informational purposes only (i.e., the studies are not used as the basis for the DWEL or the MCLG). EPA believes the current data are adequate to calculate

cancer risks for epichlorohydrin since the data consist of high quality dose-response information in animals.

EPA believes it is appropriate to establish an MCLG for epichlorohydrin at this time. EPA's occurrence estimates are based largely on residue from its use as a drinking water flocculant. While typical levels of epichlorohydrin in drinking water should be quite low because of likely chemical reactions in water of trace residues, its common usage and thus the clear potential for contamination justifies the promulgation of NPDWRs for this contaminant. Furthermore, the SDWA requires EPA to regulate epichlorohydrin. The availability of analytical methods and cost considerations are evaluated by the Agency in promulgating the enforceable MCL or treatment technique and monitoring requirements. These factors are not relevant to the establishment of the MCLG.

Regarding calculation of the DWEL, EPA believes the published literature, which contains several long-term studies, provides an adequate data base for establishing the DWEL for epichlorohydrin. EPA agrees that the study by Wester et al. (1985) is a valid study but EPA continues to use the study by Konishi et al. (1980) as the basis for the quantitative risk estimate for oral exposure. Forestomach tumors in rats were seen in both studies, but the drinking water exposure route used by Konishi et al. is considered more relevant than the gavage exposure route used by Wester et al. As EPA has explained in the November 1985 notice and in other rulemakings, the Agency has decided to establish a zero MCLG for contaminants which have shown sufficient evidence of carcinogenicity. Since epichlorohydrin has been classified in Group B2, EPA has repropoed an MCLG at zero for the compound.

16. *Ethylbenzene*. EPA proposed an MCLG of 0.68 mg/l for ethylbenzene in the November 1985 notice based on adverse effects on the kidney and liver in test animals. EPA based the MCLG on a NOEL of 136 mg/kg/day, an uncertainty factor of 1000, a factor of 5/7 to convert from 5 day per week exposure (by gavage) to daily exposure, and an estimated water consumption of 2 liters per day for a 70-kg adult. From these assumptions, EPA calculated a DWEL of 3 mg/l (rounded from 3.4 mg/l); because adequate exposure data were not available, EPA estimated that the drinking water contribution was 20 percent, resulting in an MCLG of 0.68 mg/l. No new relevant data that would change EPA's conclusions have become

available since the publication of the November 1985 notice. EPA is, therefore, repropoing an MCLG of 0.7 mg/l for ethylbenzene, rounded from the proposed MCLG of 0.68 mg/l.

Public comment: Five individuals or organizations commented on the proposed MCLG for ethylbenzene. One commenter agreed with the proposal. Two commenters felt that an MCLG should not be established because ethylbenzene is infrequently detected in water; when present, is at levels below the DWEL; and there are no studies showing that ethylbenzene in drinking water has caused human health problems. The other commenter felt that the assumed 20 percent estimated contribution from drinking water is arbitrary and overly conservative.

EPA response: EPA agrees that ethylbenzene is unlikely to occur in drinking water at levels approaching the DWEL. However, EPA is required by the 1986 Amendments to the SDWA to develop an MCL for ethylbenzene. EPA estimates a 20 percent contribution from drinking water when adequate, reliable data on human exposure are not available to make another estimate. This conservative approach takes into account the possibility of exposure to contaminants through other sources, even though that exposure cannot be quantified. Since adequate data are not available to determine the proportion of exposure to ethylbenzene through drinking water, EPA assumes a 20 percent relative source contribution.

17. *Ethylene Dibromide (EDB)*. EPA proposed an MCLG of zero for EDB based on sufficient evidence of carcinogenicity in animals (Group B2) in the November 1985 Federal Register notice. EPA presented a detailed discussion of the adverse health effects and occurrence of EDB in that notice. No new relevant data which change the conclusions presented in that notice have become available since its publication. Therefore, EPA is repropoing an MCLG of zero for ethylene dibromide.

Public comment: Three individuals or organizations commented on the MCLG proposal for EDB. One commenter disagreed with the MCLG, stating that it should be set at a non-zero level based on quantitative risk assessments derived from mathematical models or based on a LOAEL with an appropriate uncertainty factor. One commenter stated that the Agency is using flawed test data which is not sufficient for extrapolating risk to humans.

EPA response: EPA believes that the available data are adequate to classify EDB in Group B2, probable human

carcinogen and therefore an MCLG of zero is appropriate for the reasons explained in Section IIIB of this notice.

18. and 19. *Heptachlor and Heptachlor Epoxide*. In the November 1985 proposal, EPA proposed MCLGs of zero for both heptachlor and heptachlor epoxide based on sufficient evidence of carcinogenicity (Group B2) in animals. No new data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropoing an MCLG of zero for heptachlor and an MCLG of zero for heptachlor epoxide.

EPA has revised the DWELs for heptachlor and heptachlor epoxide. These revisions do not affect EPA's conclusions about heptachlor and heptachlor epoxide carcinogenicity, but are presented to provide more information on the health effects of these compounds. In the November 1985 proposal, EPA calculated a DWEL based on noncarcinogenic endpoints of 0.0025 mg/l for heptachlor, based upon a 110-day feeding study in rats (Witherup et al., 1955) and a LOAEL of 0.075 mg/kg/day. However, a reanalysis of the data indicate that a NOAEL of 0.15 mg/kg/day is more appropriate, based upon a consideration of different endpoints. Using this NOAEL and an uncertainty factor of 300, a revised DWEL of 0.02 mg/l (rounded from 0.0175 mg/l) has been calculated. An uncertainty factor of 100 was used to account for inter- and intra-species differences. An additional uncertainty factor of 3 was used to account for the fact that the most sensitive toxicological endpoint may not have been determined in the study, i.e., very few endpoints were examined in this 1955 study.

For heptachlor epoxide, a DWEL of 0.001 mg/l was calculated in the November 1985 proposal, based upon a two-generation reproduction study in dogs. A reanalysis of the data has indicated that a 60-week feeding study in dogs (Unpublished, 1958, Kettering Laboratory 60-week dog feeding study) is more appropriate for the derivation of a DWEL, since a larger number of endpoints were examined in this study. In this study, animals were given 0, 0.5, 2.5, 5 or 7.5 ppm heptachlor epoxide in the diet. Effects were noted for both males and females at the 0.5 ppm (0.0125 mg/kg/day) dose level of heptachlor epoxide. Using 0.0125 mg/kg/day as the LOAEL and an uncertainty factor of 1,000, a revised DWEL of 0.0004 mg/l has been derived. Since heptachlor and heptachlor epoxide have sufficient evidence of carcinogenicity, the revised

DWELs have not been used to set the proposed MCLGs.

Public comments: Four individuals or organizations commented on the MCLG proposal for heptachlor and heptachlor epoxide. One commenter recommended reclassifying heptachlor and heptachlor epoxide to EPA Group C (possible human carcinogen) because rodents have an extremely high background of liver cancer and are not appropriate surrogates for extrapolation to humans. Three commenters stated that a single MCLG for heptachlor and heptachlor epoxide is adequate, since carcinogenic potential has been shown for both.

EPA response: According to EPA's guidelines for classification of carcinogens, Group B2 is used when there is sufficient evidence of carcinogenicity in animals and inadequate data in humans. These guidelines also state that mouse liver tumor data should be taken as sufficient evidence of carcinogenicity, unless specific information on the compound's toxicology would warrant a different classification. The analysis of the data for heptachlor and heptachlor epoxide show sufficient evidence of carcinogenicity in the mouse, as well as some evidence in the rat, a second species. This analysis considered the results of the NCI 1976 bioassay, based on the evaluation of slides by independent pathologists. Thus, EPA believes a Group B2 classification is justified.

The relative toxic and carcinogenic effects of heptachlor and heptachlor epoxide vary with respect to dose levels in animals. In addition, both of these compounds have been detected in drinking water. Thus, EPA believes it is appropriate to develop separate MCLGs for these chemicals.

20. Lindane: EPA proposed an MCLG of 0.0002 mg/l for lindane in the November 1985 proposal, based upon a DWEL of 0.01 mg/l, an additional uncertainty factor of 10 (since lindane was classified as Group C—possible human carcinogen) and 20% contribution from drinking water. No new data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropounding an MCLG of 0.0002 mg/l for lindane.

Public comments: Six individuals or organizations commented on the MCLG proposal for lindane. Several commenters disagreed with the establishment of an MCLG for lindane, citing weak health effects data and low occurrence. One commenter suggested that rulemaking could be delayed since there is an MCL already in effect. One commenter stated that the MCLG should

be zero for lindane since it has been demonstrated to cause malignant liver tumors in two strains of mice.

One commenter supported the classification of lindane in Group C and discussed the use of alternate studies cited in the *Federal Register* to derive the DWEL.

EPA response: EPA believes there are sufficient health effects data to support the proposed MCLG for lindane. Acute exposure to lindane results in neurological and behavioral effects. Subchronic and chronic studies have shown a variety of effects, including liver hypertrophy, kidney tubular degeneration and interstitial nephritis. EPA recognizes that occurrence of lindane in public water supplies is likely to be limited and has taken this into account in the proposed monitoring requirements (See section VI). In addition, the SDWA Amendments of 1986 require that a drinking water regulation be set for lindane. The existence of a current MCL for lindane does not justify delaying this rulemaking. The 1986 Amendments require EPA to promulgate an MCL for lindane notwithstanding the current MCL.

Regarding the carcinogenic potential of lindane, the only evidence of carcinogenicity is in mice. An effect has been reported in only one species, and according to the EPA Guidelines for Carcinogen Risk Assessment, this results in a Group C classification. Therefore, a non-zero MCLG has been proposed for lindane.

21. Methoxychlor. EPA proposed an MCLG of 0.34 mg/l for methoxychlor in the November 1985 notice. The adverse health effects and occurrence of methoxychlor are discussed in detail in that notice. The MCLG was based on a rat study in which a NOAEL of 5 mg/kg/day was identified and an uncertainty factor of 100 was applied, resulting in a DWEL of 2 mg/l (rounded from 1.75 mg/l). EPA also assumed that drinking water contributes 20% to the overall exposure of methoxychlor. EPA is repropounding an MCLG of 0.4 mg/l for methoxychlor (the number was rounded to 0.4 mg/l based upon a DWEL of 1.75, instead of 1.7, which was used in the November 1985 notice). However, it should be noted that the Office of Pesticides Program (OPP) recently received a teratology study in rabbits (Kincaid Enterprises, Inc. 1986. MRID 00159929). EPA is currently reviewing this study. The MCLG for methoxychlor may be changed if EPA determines that the study is appropriate for determining the MCLG for this contaminant. The study is included in the record for this proposal and EPA requests comment on

whether it should be relied upon in determining the MCLG.

Public comments: Three individuals or organizations submitted comments on the proposed MCLG for methoxychlor. One commenter agreed with the proposal. Two commenters disagreed with proposing an MCLG for methoxychlor because of the lack of occurrence and exposure data.

EPA response: EPA agrees that the available data indicate that the occurrence of methoxychlor in drinking water supplies is not widespread. However, EPA is required by the 1986 Amendments to the SDWA to set an MCL for methoxychlor. The available occurrence data has been taken into account in the proposed monitoring requirements for methoxychlor (see section VI).

22. Monochlorobenzene. EPA proposed an MCLG of 0.06 mg/l for monochlorobenzene in the November 1985 proposal. Discussions of the available human exposure data and health effects of monochlorobenzene were presented in the November 1985 proposal. This notice will discuss only the new data and conclusions that have been changed since publication of that notice, resulting in a repropounded MCLG of 0.1 mg/l.

In the November 1985 proposal, EPA calculated a DWEL for monochlorobenzene based upon a subchronic study in which rats and mice were administered monochlorobenzene five times weekly by gavage in corn oil. (Battelle-Columbus. 1978.

"Chlorobenzene. Subchronic Toxicity Study in B6C3F1 Mice." Unpublished report; and Battelle-Columbus. 1978. "Chlorobenzene. Subchronic Toxicity Study—Fischer 344 Rats." Unpublished report.) A NOAEL of 125 mg/kg/day, a conversion factor of 5/7 to average exposure over a week, and an uncertainty factor of 1,000 were used, resulting in a DWEL of 3.0 mg/l (rounded from 3.125 mg/l). An additional uncertainty factor of 10 was then applied, since monochlorobenzene was classified in Group C by the EPA carcinogenicity guidelines. This resulted in an MCLG of 0.06 mg/l, assuming 20 percent contribution from drinking water.

EPA presently believes a subchronic study in dogs given monochlorobenzene five times weekly orally by capsule is the best study available to calculate the MCLG. (Hazelton Laboratories. 1967. "13-Week Oral Administration—Dogs. Monochlorobenzene." Final report, submitted to Monsanto Company. Project No. 241-105; and Knapp, W.K., Busey, W.M., and Kundzins, W. 1971.

"Subacute Oral Toxicity of Monochlorobenzene in Dogs and Rats." *Toxicol. Appl. Pharmacol.* 19:393 (Abstract). This study was considered in 1985 for derivation of the DWEL but was not used due to the availability of a newer study. However, discussions with the investigating pathologist concerning the interpretation of liver pathology in the dog study in which he stated that 55.5 mg/kg/day should be considered the LOAEL and 27.25 mg/kg/day should be considered the NOAEL have resulted in support for a lower NOAEL for the compound. Thus, EPA now believes it is prudent to base the MCLG on the Hazelton dog study. Using this study, EPA has selected a NOAEL of 27.25 mg/kg/day, since liver lesions attributable to treatment with monochlorobenzene were observed in dogs at doses above 27 mg/kg/day. Adjusting the NOAEL by 5/7 (because the dose was only administered for 5 days per week), and applying an uncertainty factor of 1,000, a DWEL of 0.7 mg/l (rounded from 0.694 mg/l) has been calculated. An uncertainty factor of 1,000 was applied since the study was of a duration significantly less-than-lifetime.

EPA also believes that monochlorobenzene should be classified in Group D, rather than Group C as originally proposed. In the original proposal, the classification of Group C was based upon the results of the NTP bioassay in which monochlorobenzene increased the occurrence of neoplastic nodules of the liver in the high dose male rats. Carcinogenic effects were not observed in female rats or mice of either sex. Other evidence relevant to the carcinogenicity weight of evidence included the results of mutagenicity assays, with positive results in yeast and fungi and negative results in bacteria and cultured mouse lymphoma cells.

EPA has reexamined these data and believes they are insufficient to support a Group C classification. In the NTP bioassay, the incidence in neoplastic nodules of the liver in high-dose male rats was increased compared to controls. EPA no longer believes this increase to have statistical significance. The NTP only considered the incidence of neoplastic nodules in the analysis of the results and did not include in its results the presence of hepatocellular carcinomas in two vehicle male rats. EPA's policy is to combine both malignant and benign tumors when analyzing data (see EPA's Guidelines for Carcinogen Risk Assessment, 51 FR 33992). Thus, when EPA combined the data on hepatocellular carcinoma with the data for neoplastic nodules, the

response in high-dose males was reduced to borderline significance by only one statistical test. There was no increase in incidence of hepatocellular carcinomas in male rats or of neoplastic nodules or hepatocellular carcinomas in female rats. These data are, therefore, judged to be inadequate for a Group C assessment of carcinogenicity.

EPA also believes that the mutagenicity data and other data relevant to the weight of evidence provide inadequate support for a Group C classification. The formation of carcinogenic metabolites, either reactive intermediates (epoxides) such as 3,4-chlorobenzene oxide or benzene, had been proposed as a possible mechanism leading to monochlorobenzene carcinogenicity. On further review and with input from EPA's Science Advisory Board, EPA has concluded that this is not the case. EPA's Science Advisory Board stated that the mechanism of monochlorobenzene toxicity is not known. Neither monochlorobenzene nor its metabolites induce DNA damage or mutations in standard mutagenicity assays. Epoxide intermediates either are readily conjugated via a glutathione transferase pathway or spontaneously rearrange to form chlorophenols which then undergo conjugation. Benzene is not formed as a metabolite; metabolism via other pathways also terminates with the excretion of conjugated chlorophenols.

Hence, EPA believes, with concurrence from EPA's Science Advisory Board, that a Group D classification is more appropriate for monochlorobenzene.

In summary, EPA has recalculated a DWEL of 0.7 mg/l (rounded from 0.675 mg/l), based upon a different study than was used in the MCLG proposal. Assuming a 20 percent contribution from drinking water results in an MCLG of 0.1 mg/l (rounded from 0.139 mg/l). EPA has reclassified monochlorobenzene in Group D, so an additional uncertainty factor of 10 was not applied.

Public comments: Eight individuals or organizations commented on the proposed MCLG for monochlorobenzene. One commenter felt that the statement in the *Federal Register* that monochlorobenzene has been shown to cause mutagenic effects in higher plants and certain microorganisms was a misrepresentation of the actual data, since mutagenicity studies have shown mixed results. Several commenters stated that no MCLG should be established for monochlorobenzene since the occurrence is very low and the health effects data are very weak.

Two commenters felt that the compound should be classified in Group D rather than Group C since the NTP bioassay detected only a small increase in liver tumors in male rats, with no effect in female rats or in male or female mice. One commenter supported the use of the subchronic study as the basis for the MCLG, while another commenter stated that a rabbit study could be used to calculate the MCLG.

EPA response: While it is true that older mutagenicity studies in plants showed positive results, the more recent studies in animals and microorganisms have been negative. Thus, EPA believes that it is accurate to state that mutagenicity studies have shown mixed results, but the preponderance of the evidence is negative. EPA believes that there is sufficient health effects information to support an MCLG for monochlorobenzene, since dose-response data are available from animal studies. EPA agrees that monochlorobenzene has not been found to be common in drinking water samples, but the potential for drinking water contamination exists since the compound has been identified at five hazardous waste sites. In addition, EPA is mandated by the SDWA Amendments to establish an MCLG for monochlorobenzene.

EPA agrees that monochlorobenzene should be classified in Group D for the reasons stated above. EPA does not agree that the rabbit study should be used to calculate the MCLG, since exposure was through the inhalation route, rather than ingestion.

23. Polychlorinated biphenyls (PCBs). In the November 1985 proposal, EPA proposed an MCLG of zero for PCBs based on sufficient evidence of carcinogenicity in animals (Group B2). No new data which change the conclusions presented in that notice have become available since its publication. EPA is therefore repropounding an MCLG of zero for PCBs.

Science Advisory Board Comments: EPA's Science Advisory Board (SAB) has stated that EPA should regulate PCBs by regulating the most toxic individual isomers. They have stated that a scale of toxicities for PCB isomers should be prepared and an "equivalency approach" developed, using the most toxic PCBs as the basis for comparison. EPA requests comments on this approach.

Public comments: Seven individuals or organizations commented on the MCLG proposal for PCBs. A number of commenters disagreed with the proposal of an MCLG of zero for PCBs for the following reasons:

- Inadequate evidence to classify PCBs as Category I carcinogens.
- Epidemiologic studies of exposed workers have not found significant cancer increases.
- The FDA allows a tolerance of 0.013 mg/day.
- Inadequate evidence of mutagenicity.
- Limited occurrence data.
- Analytical methods detect only some PCB isomers.
- The MCLG is unattainable.

Several commenters agreed that it is appropriate to set regulations for PCBs as a class of compounds, while one commenter stated that setting regulations for PCBs as a class is inappropriate because of significant health differences in isomers. Another commenter suggested that enforcement and treatment regulations should be based on those isomers with demonstrated adverse health effects.

EPA response: There are several animal studies which show PCB mixtures to be carcinogenic. As discussed in the November 1985 proposal, EPA believes these studies are sufficient to classify PCBs in Group B2, probable human carcinogen. EPA does not agree with the commenter that epidemiologic studies are negative. Three recently published epidemiologic studies of PCB-exposed populations reported statistically significant excesses of tumors of the lung, liver, gastrointestinal tract and hematopoietic system. However, these studies did not control for any potentially confounding factors and the number of exposed individuals was small. Thus, the epidemiologic data are suggestive, but are not conclusive in terms of PCBs as the sole etiologic agent for these types of cancer. Mutagenicity studies have shown mixed results, with some positive evidence; thus, EPA disagrees with the commenter's characterization of the mutagenicity evidence as inadequate. However, EPA has relied on the animal carcinogenicity data, not the mutagenicity data, in setting the MCLG for PCBs.

EPA does not believe that the FDA tolerance should be used as the basis for the MCLG, since FDA tolerances are developed for different uses and have a different basis from drinking water standards. The MCLG is based on health effects data only, and does not consider the availability of analytical methods or the feasibility of attaining the MCLG. EPA agrees that PCBs have not been found to have widespread occurrence in drinking water, but believes the evidence of adverse health effects and limited occurrence is sufficient to warrant an MCLG. In

addition, the SDWA Amendments direct EPA to set a regulation for PCBs.

The MCLG is a nonenforceable health goal, and thus the fact that zero is unattainable is not relevant to setting the MCLG.

EPA agrees that differences exist in health effects between the isomers but does not agree that the MCLG should be based on a specific isomer instead of on PCBs as a class of compounds. It would be impossible to regulate specific isomers since technical or commercial grade PCBs are mixed isomers from 10 classes of chlorobiphenyls containing 209 possible isomers.

24. Pentachlorophenol. EPA proposed an MCLG of 0.2 mg/l for pentachlorophenol in the November 1985 proposal. This was based upon an DWEL of 1 mg/l (rounded from 1.05 mg/l) calculated from a 24-month feeding study in rats with a NOAEL of 3 mg/kg/day, an uncertainty factor of 100 and a 20 percent drinking water contribution. Pentachlorophenol was classified in EPA's Group D. However, recent positive carcinogenicity data may lead to a revision of the MCLG.

The NTP recently completed a carcinogenicity bioassay on technical and purified commercial grades of pentachlorophenol in mice. The draft report [NTP Technical Report on the Toxicology and Carcinogenesis Studies of Pentachlorophenol (CAS no. 87-86-5) in B6C3F₁ Mice (Feed Studies); Draft Report, April, 1988] showed dose-related increases in three tumor types (hemangiosarcomas, adrenal pheochromocytomas, and carcinomas and adenomas) of the liver and adrenal tumors in males and females with both grades of the compound. EPA has concluded that this study would support reclassification of pentachlorophenol into Group B2 (sufficient evidence in animals) since the multiple tumor types at different dose levels in both sexes of mice satisfies the criteria for sufficient evidence for carcinogenicity in animals. Thus, EPA requests comment on an MCLG of zero for pentachlorophenol, based on the revised classification of B2 indicating sufficient evidence of carcinogenicity in animals.

Public comments: Six individuals or organizations commented on the MCLG proposal for pentachlorophenol. One commenter requested that EPA discuss the analytical procedures for the measurement of pentachlorophenol concentrations in drinking water in more detail. Another commenter asserted that some pentachlorophenol is present as a result of biodegradation of pesticides, that 97 percent of it is used for wood treatment, and that its use on wood is not recommended where it will come

into contact with potable water. One commenter noted a specific health effects study that should also be included in the Health Criteria Document, and discussed another study in which a low LD₅₀ value which was reported in the Health Criteria Document might possibly be due to dioxin or dibenzofuran contamination. The commenter stated that the probable cause of the toxicity was the fuel oil vehicle.

Several commenters stated that an MCLG should not be established for pentachlorophenol due to data which indicate that the health effects are based on furan and dioxin impurities in the pentachlorophenol, and the fact that the occurrence of pentachlorophenol in water is low. One commenter disagreed with the NOAEL of 3 mg/kg/day employed in the calculation of the MCLG.

EPA response: The analytical procedures for pentachlorophenol are discussed in more detail in Section IV. EPA agrees with the commenter's points on human exposure data on pentachlorophenol, i.e., that the occurrence of pentachlorophenol in rivers and streams comes from degradation products and that greater than 97 percent of pentachlorophenol is used in the treatment of wood. This information has been incorporated in EPA's report on the occurrence of pentachlorophenol.

EPA agrees with the commenter that the additional health effects study should be included in the Health Criteria Document and the fact that the fuel oil vehicle was a probable reason for the low LD₅₀. This study and explanation have been added to the Health Criteria Document.

EPA believes that it is appropriate to set a standard for pentachlorophenol. 2,3,7,8-Tetrachlorodibenzo-p-dioxin was not detected in commercial pentachlorophenol used to set the MCLG. EPA agrees that occurrence and exposure data on pentachlorophenol are limited, but the compound has been detected in rivers and streams and pentachlorophenol has been identified at one hazardous waste site. In addition, the 1986 SDWA Amendments direct EPA to set an MCLG for this compound.

EPA disagrees with the commenter regarding the NOAEL of 3 mg/kg/day. No effects were seen in the Johnson et al. study [Johnson, R.L., Gehring, P.J., Kociba, R.J., and Schwetz, B.A. 1973. "Chlorinated Dibenzodioxins and Pentachlorophenol." *Environ. Health Perspec.*, Exp. Issue No. 5, Sept., 1973, pp. 171-175] at this dose level, while the 10 mg/kg/day dose produced increased

liver weights. EPA thus believes 3 mg/kg/day is an appropriate NOAEL.

25. *Styrene*: EPA proposed an MCLG of 0.14 mg/l for styrene in the November 1985 proposal. This was based upon a study in which beagle dogs were given styrene in a peanut oil suspension by gavage 7 days/week for up to 561 days. A NOAEL of 200 mg/kg/day was used with an uncertainty factor of 1,000, resulting in a DWEL of 7 mg/l. An additional uncertainty factor of 10 was applied because styrene was classified in EPA's Group C. Data which change the conclusions presented in that notice have become available and styrene has been reclassified in EPA's Group B2. The EPA Science Advisory Board (SAB) reviewed the Drinking Water Health Criteria Document for Styrene (February 4-5, 1988) and provided written review comments (July 19, 1988). The extensive SAB review comments are currently being considered by the EPA. After consideration of the SAB review and public comment, the EPA will reexamine this decision. Since the final cancer group classification of styrene is still under consideration at the present time, the EPA is proposing MCLGs of 0.1 mg/l (based on a group C classification) and zero (based on a Group B2 classification) and requests public comments on both proposed MCLGs.

The reclassification to Group B2 is based on reevaluation of animal bioassay data as well as new metabolism and genotoxicity data. The SAB does not agree that there is sufficient evidence to justify the reclassification of styrene to EPA Group B2 and recommends continuation of the Group C classification. The EPA recognizes that the Group B2 classification is a matter for further consideration within the Agency as well as by the public, due to different views on interpretation of the animal bioassay data. For example, the comparison of exposed animals to concurrent controls versus historical control data can result in different levels of statistical significance. Another critical issue affecting the classification of styrene is the degree of emphasis to place on supporting metabolism and genotoxicity data. For example, there is a wide range of opinions regarding the relevance of low levels of a carcinogenic metabolite (styrene-7,8-oxide) in humans exposed to styrene. The final outcome of reviews of supporting data will influence the weight-of-the-evidence approach detailed in the EPA's Guidelines for Carcinogen Risk Assessment.

The evidence from animal cancer bioassays indicated an elevated incidence of tumors in both rats and

mice. In one study (Ponomarev, V., and Tomatis, L. 1978. "Effects of Long-term Oral Administration of Styrene to Mice and Rats. *Scand. J. Work Environ. Health*. 4(Suppl. 2):127-135), an increased incidence of lung tumors was observed in male and female O₂₀ mice. Also, an increased incidence of liver carcinomas was shown in male C57B1 mice administered styrene by gavage. In the National Cancer Institute (NCI) bioassay of styrene, when study controls are considered, a statistically significant increase in lung tumors was seen in male B6C3F1 mice with a positive dose-response trend (NCI Technical Report Series No. 185, 1979). In an inhalation study [Jersey, G.C., et al. 1978. "Two-Year Chronic Inhalation Toxicity and Carcinogenicity Study on Monomeric Styrene in Rats." Dow Chemical Study for Manufacturing Chemists Association. Dec. 6, 1978] the incidence of mammary adenocarcinomas was elevated in female Sprague-Dawley rats.

The EPA Guidelines for Carcinogenic Risk Assessment encourage the use of additional considerations to support or limit the strength of the bioassay evidence. In the case of styrene, the evidence for genotoxicity in short-term animal tests and in humans occupationally exposed to the chemical along with recent data on the metabolite styrene-7,8-oxide is considered supportive of carcinogenic potential.

The new metabolism and genotoxicity data indicate that styrene-7,8-oxide is the initial metabolite of styrene in humans and animals and that it is a potent animal carcinogen. A recent study demonstrated the presence of styrene-7,8-oxide in the blood of workers exposed to styrene in glass fiber-reinforced plastic factories. Supporting studies show protein and DNA adduct formation in various mouse tissues following styrene and styrene-7,8-oxide exposure. Covalent binding of styrene-7,8-oxide was demonstrated in mouse DNA from liver, lung and brain.

EPA previously classified styrene in Group C based upon the limitations of the animal cancer bioassays and supporting data. However, EPA now believes that these animal studies, when considered together with the new metabolism and genotoxicity data, may form a sufficient basis for classifying styrene in Group B2.

EPA requests comment on the possible health effects of styrene degradation products in water. Styrene is not stable under oxidizing conditions and converts to chlorostyrene and other degradation products in water containing chlorine. Any information on

these degradation products is requested. Comment is also requested on whether styrene should be classified as a Group C or Group B2 carcinogen based upon the considerations outlined above.

The Occupational Safety and Health Administration (OSHA) recently reviewed the carcinogenicity of styrene (54 FR 2429). In that *Federal Register* notice OSHA indicated its belief that the current evidence on styrene's carcinogenicity does not support its classification as a carcinogen. OSHA has reviewed additional evidence and has determined that the most appropriate basis for classifying styrene in its rulemaking is styrene's demonstrated narcotic effect. In its criteria document, the National Institute of Occupational Safety and Health (NIOSH) considers styrene primarily a narcotic and central nervous system toxin.

Public comments: Nine individuals or organizations commented on the MCLG proposal for styrene. One commenter agreed that styrene should be classified in Group C and that the DWEL was appropriate. One commenter stated that EPA has ample evidence to conclude that styrene is a potential human carcinogen. The other commenters stated that styrene should be deleted from the proposed regulation because the potential for occurrence is questionable, no occurrence data exist, styrene is very poorly soluble in water and the organoleptic threshold is lower than the adverse effect level.

EPA response: The final carcinogenicity classification of styrene is being reviewed as discussed above. Styrene has been found in both surface and ground water and in drinking water supplies. Additionally, EPA suspects styrene will be released into drinking water as a result of the use of certain resins for water treatment, and thus believes there is sufficient basis for establishing an MCLG. Furthermore, the 1986 SDWA amendments direct EPA to establish an MCLG for styrene.

Styrene has been detected in water, and thus EPA believes the solubility of the compound is not an issue. Regarding the organoleptic threshold, MCLGs are based on health effects only; secondary maximum contaminant levels are established to protect the aesthetic quality of water (including odor). EPA's proposed MCL of 0.1 mg/l is above the organoleptic threshold of 0.01 mg/l. Consequently, EPA is also proposing a secondary MCL of 0.01 mg/l.

26. *Tetrachloroethylene*. EPA first proposed an MCLG for tetrachloroethylene on June 12, 1984 (49 FR 24330). Assessments based on both

carcinogenic and noncarcinogenic effects were presented. EPA proposed an MCLG of zero based on carcinogenic potential, but recognized the available data indicated only "limited" evidence of carcinogenicity in animals. The assessment of carcinogenicity was based primarily on the 1977 NCI bioassay in which rats and mice were administered tetrachloroethylene via gavage. Mice showed an increased incidence of hepatocellular carcinoma. Data on rats were equivocal because of excessive mortality. A DWEL of 0.085 mg/l was also derived based on noncarcinogenic effects.

Public comments were received on the 1984 notice and the Agency response was published in the November 13, 1985 proposal. The 1985 proposal also included a reevaluation of the carcinogenicity classification. Both data from the 1977 NCI bioassay and a draft report on the 1985 NTP inhalation bioassay in rats and mice were available at that time. The inhalation bioassay also indicated that tetrachloroethylene caused an increased incidence of both hepatocellular carcinoma and adenoma in mice of both sexes. In addition, an increased incidence of mononuclear cell leukemia and renal tubular adenomas/carcinomas (combined) were observed in rats. The NTP had also repeated the gavage administration study in rats but this study was not validated following an extensive audit. On the basis of these data, EPA stated on November 13, 1985, that "sufficient" evidence of carcinogenicity in animals was available and recommended that tetrachloroethylene be classified in Group B2 (probable human carcinogen), according to the EPA cancer guidelines. Before reaching a final conclusion on the appropriate MCLG, EPA allowed an additional 45-day comment period for public comment on the draft NTP inhalation bioassay.

Prior to the November 1985 notice, both EPA's Risk Assessment Forum and Science Advisory Board (SAB) had concluded that available data were not adequate to support a classification of tetrachloroethylene as a probable human carcinogen (B2). However, neither group had the opportunity to review the draft 1985 NTP bioassay before publication of that notice. A review of the data on tetrachloroethylene, including the 1985 NTP inhalation bioassay, was subsequently conducted by the Halogenated Organics Subcommittee of the Science Advisory Board. The Subcommittee recommended that tetrachloroethylene be classified in

Group C: possible human carcinogen (U.S. EPA, Science Advisory Board: Environmental Health Committee Halogenated Organics Subcommittee report from N. Nelson and R. Griesmen to L. Thomas, January 27, 1987).

In August of 1987, the SAB's Halogenated Organics Subcommittee held a scientific workshop to discuss issues related to the toxicology of tetrachloroethylene (and other chemicals), such as the relevance of mouse liver tumors to human cancer risk. The SAB also examined the cancer classification of tetrachloroethylene and concluded that the overall weight of evidence lies on the continuum between EPA's Groups B2 and C (U.S. EPA, Science Advisory Board: Environmental Health Committee Halogenated Organics Subcommittee report from N. Nelson, R. Griesemer and J. Doull to L. Thomas, March 9, 1988).

EPA recognizes that, as with most chemicals, the evaluation of the carcinogenic potential of tetrachloroethylene in humans has its controversial elements. Because no scientific consensus yet exists, it is necessary for the Agency to make a judgment based on a reasonable weighing of evidence from the data at hand. In addition to the positive evidence provided by both the 1977 and 1985 carcinogenicity bioassays, weight of evidence consideration has been given to other factors as well. Mutagenicity, metabolites and their mutagenic/carcinogenic potential and data on the epidemiology of tetrachloroethylene were evaluated with respect to tetrachloroethylene carcinogenicity. The epidemiologic evidence is inadequate; the data are of insufficient quality to demonstrate either the presence or the absence of an effect. Metabolic considerations, however, provide some support for potential carcinogenicity since tetrachloroethylene epoxide, a reactive metabolite of tetrachloroethylene, has been found to be mutagenic and spent TCA, a major metabolite, and spent DCA, a minor metabolite, show both human promoting and complete carcinogenic properties in a mouse bioassay.

Mutagenicity data, in general, have been inconclusive or negative. Evidence of liver tumors in both sexes of mice by two routes of administration, evidence of mononuclear cell leukemia in rats, and evidence of renal adenomas/carcinomas in male rats, which is viewed as suggestive at present given the concerns about relevance to humans, along with supportive evidence of carcinogenic reactivity from metabolite considerations, and an

inadequate epidemiologic data base, provide a basis for classifying tetrachloroethylene in Group B2, probable human carcinogen, and establishing an MCLG of zero.

If one accepts a weighing of the evidence to be limited, along with the inadequate epidemiologic data base, tetrachloroethylene would be classified in Group C, possible human carcinogen. Under this classification, the MCLG would be 0.01 mg/l, calculated using a NOAEL of 20 mg/kg/day, based upon the absence of effects in mice (Buben and O'Flaherty, 1985. Delineation of the Role of Metabolism in the Hepatotoxicity of Trichloroethylene and Perchloroethylene. A Dose-Effect Study. *Tox. Appl. Pharm.* 73:105-122) and rats (Hayes et al. 1986. The Subchronic Toxicity of Tetrachloroethylene (Perchloroethylene) Administered in the Drinking Water of Rats. *Fundamental and Applied Toxicology* 7:119-125), an adjustment of 5/7 (since the dose was administered for 5 days per week), an uncertainty factor of 1,000, a 20 percent assumed contribution from drinking water and an additional uncertainty factor of 10, to account for the Group C classification.

EPA is proposing the MCLG for tetrachloroethylene at zero, based upon a Group B2 classification. However, the Agency will fully consider both approaches before promulgation. Comment is requested on both approaches.

27. *Toluene.* EPA proposed an MCLG of 2.0 mg/l for toluene in the November 13, 1985, notice, based on a NOAEL of 1130 mg/m³ from animal studies. No new data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropounding an MCLG of 2 mg/l (rounded from 2.0 mg/l) for toluene.

Public comments: Five individuals or organizations commented on the MCLG proposal for toluene. All commenters disagreed with the proposed MCLG for toluene, asserting that the available occurrence data were inadequate. One of the commenters stated that the estimated 20 percent contribution of drinking water to total toluene exposure was overly conservative and arbitrary. One commenter stated that, based on occurrence data, a 10 percent contribution from drinking water should be assumed. Another commenter stated that there is no data correlating toluene in drinking water with adverse human health effects.

EPA response: EPA presented a summary of the occurrence data on toluene in the November 1985 notice.

While the levels of toluene in drinking water are generally below the proposed MCLG, toluene was found frequently in the water sampled; 20 percent of the samples in the National Screening Program (NSP) survey were positive for toluene. EPA believes the widespread use of petroleum products creates the potential for the occurrence of toluene in drinking water even though the historical occurrence is low. In addition, the 1986 Amendments to the SDWA require EPA to set an MCLG for toluene.

The basis for EPA's assumption that drinking water could contribute up to 20 percent of total toluene exposure is presented in Section III-B; no actual data on toluene exposures from other sources were submitted by the commenter. Thus, EPA believes a 20 percent contribution from drinking water is appropriate in the absence of specific data in accordance with the policy described earlier in this notice. EPA solicits any such data that may be available.

28. *Toxaphene*. EPA proposed an MCLG of zero for toxaphene in the November 1985 proposal. This was based upon data which indicate that toxaphene is a carcinogen in animals and thus is classified in Group B2. No new relevant data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore, repropounding an MCLG of zero for toxaphene.

Public comments: Two individuals or organizations commented on the MCLG proposal for toxaphene. One commenter agreed with the proposal. The other commenter disagreed with EPA's assessment of toxaphene occurrence in water, stating that a recent survey of rural water sources contradicts the conclusion that significant occurrences of toxaphene contamination exist.

EPA response: EPA agrees that toxaphene was not detected in the Rural Water Survey and that occurrence appears to be minimal. However, EPA is required to prepare drinking water regulations for toxaphene under the 1986 SDWA Amendments.

29. *2,4,5-TP (Silvex)*. EPA proposed an MCLG of 0.052 mg/l for 2,4,5-TP in the November 1985 proposal. This was based upon a two-year feeding study in dogs in which 0.75 mg/kg/day was identified as the NOAEL [Mullison, 1968. South Weed Conf. Proc. 19th Annual Meeting, Jacksonville, FL, pp. 420-436]. Using an uncertainty factor of 100, a DWEL of 0.26 mg/l was calculated. No new relevant data which change the conclusions presented in that notice have become available since its publication. EPA is, therefore,

repropounding an MCLG of 0.05 mg/l, rounded from the proposed value of 0.052 mg/l.

Public comments: Five individuals or organizations commented on the MCLG proposal for 2,4,5-TP. One commenter noted that the Federal Register notice did not contain adequate details on the analytical methods for detection of 2,4,5-TP in drinking water. One commenter pointed out that 2,4,5-TP is not likely to occur in drinking water since most uses of 2,4,5-TP were suspended in 1979, all registrations have been voluntarily withdrawn or cancelled, and the period for limited use of existing stocks has expired. Three commenters recommended that 2,4,5-TP not be regulated because of its low occurrence. One commenter disagreed with the MCLG proposed by EPA, stating that a 20 percent drinking water contribution is not appropriate since there is little or no likelihood of exposure from food or air. One commenter questioned the rationale on why NAS used an uncertainty factor of 1,000, while EPA used an uncertainty factor of 100 for the same data.

EPA response: See Section IV for a discussion of the proposed analytical method for 2,4,5-TP. EPA agrees that occurrence of 2,4,5-TP is limited, but the compound has been found in drinking water supplies at hazardous waste sites and in waste water. Thus, EPA believes the potential exists for some occurrence and, under the provisions of the 1986 SDWA Amendments, EPA must set a drinking water regulation for 2,4,5-TP.

EPA believes that exposure data are inadequate to assess the contribution of 2,4,5-TP from the different sources (food and air) and thus believes it is appropriate to consider a 20 percent contribution from drinking water, according to the policy previously described. NAS did not provide a rationale for their selection of an uncertainty factor of 1,000; EPA's use of an uncertainty factor of 100 was consistent with its policy on the use of uncertainty factors based on a NOAEL from an animal study.

30. *Xylenes (total)*. EPA proposed an MCLG of 0.44 mg/l for xylenes in the November 1985 proposal. However, since that time new data have become available which change EPA's conclusions about xylene's toxicity. This notice will discuss only the new data and conclusions that have been changed since publication of that notice, resulting in a repropounded MCLG of 10 mg/l for xylenes. For the purposes of this proposal, xylenes are considered to be the mixture of three isomers, ortho-, meta-, and para-xylenes.

In the November 1985 proposal, EPA estimated a provisional DWEL for

xylenes based on an inhalation study using rats, guinea pigs, monkeys and dogs. The animals were exposed continuously for 90 days; an exposure level of 337 mg/m³ was determined to be the NOAEL for xylenes based on this study. EPA applied an uncertainty factor of 1,000 (because few animals were used in the study), and assumed that an adult consumes two liters of water per day; this resulted in a DWEL of 2.2 mg/l. Finally, EPA assumed that 20 percent of xylenes exposure comes from drinking water; resulting in an MCLG of 0.44 mg/l.

EPA also evaluated the carcinogenic potential of xylenes in the November 1985 proposal. Few data were available; a carcinogenicity bioassay was at that time being conducted by the NTP although the data were not available. Xylenes were placed in Group D, based on inadequate animal data.

Since the November 1985 notice, the NTP bioassay (Toxicology and Carcinogenesis Studies of Xylenes, Technical Report No. 327, 1986) on xylenes in rats and mice has been completed and made available. The test compound contained p-xylene (13.6 percent), m-xylene (60.2 percent), o-xylene (9.1 percent) and ethylbenzene (17 percent). At no site was the incidence of neoplastic lesions in rats or mice of both sexes found to be related to the administration of xylenes. Xylenes are classified in Group D; EPA is presently reconsidering this classification and may change it to Group E (based upon the review of the bioassay results) at a later date.

Based on the NTP study, EPA is proposing a revised MCLG because this study was conducted by the oral route. It is therefore more representative of xylene's toxicity in drinking water than is the inhalation study which formed the basis for the MCLG in the November 1985 notice. The NTP study involved the administration of 0, 250, or 500 mg/kg xylenes in corn oil by gavage to groups of F344/N rats of each sex, 5 days per week for 103 weeks. Although the mortality was dose-related in male rats (final survival: vehicle control, 36/50; low dose, 26/50; high dose, 20/50), many of the early deaths in the dosed males were gavage related. Body weights of the high-dose (500 mg/kg) male rats were 5 to 8 percent lower than those of the vehicle controls after week 59. The mean body weights of low-dose and vehicle control male rats and those of dosed and vehicle control female rats were comparable. Survival rates of female rats were not significantly different from those of the vehicle controls. Using the 250 mg/kg dose

(adjusted by 5/7 because the dose was only administered for 5 days per week) of xylenes in rats as the NOAEL, and an uncertainty factor of 100, an RfD of 1.78 mg/kg/day has been calculated. A DWEL of 62 mg/l was calculated from the RfD value of 1.78 mg/kg/day, assuming that a 70-kg adult consumes 2 liters of water per day. The proposed MCLG of 10 mg/l (rounded from 12 mg/l) is based on the DWEL of 62 mg/l, assuming 20 percent of total exposure to xylenes is from drinking water sources.

Public comments: Four individuals or organizations commented on the MCLG proposal for xylenes. One commenter agreed with the proposal. One commenter disagreed with the assumed 20 percent contribution of drinking water to total xylenes exposure, asserting that it was an over-conservative and arbitrary figure and is inappropriate because the air concentration of xylenes is low and it is unlikely to contaminate food. Two commenters stated that xylenes will not have a significant impact asserting that it has only been found in drinking water following installation of floating covers which used adhesives in which xylenes were a solvent.

EPA response: There is at present inadequate data to characterize exposures to xylenes from food and air. In the absence of such data, EPA is assuming a 20 percent contribution from water, for the reasons outlined previously.

EPA agrees that xylenes have not been found to have widespread occurrence in drinking water, and thus many systems will not have to install treatment to meet the proposed standard. However, the 1986 SDWA Amendments require that a regulation be set for xylenes.

IV. Determination of Proposed MCLs

The MCLs being proposed by EPA are as follows:

TABLE 5.—PROPOSED MCLs

Compound	MCL (mg/l)
Inorganics:	
Asbestos ¹	7 Million fibers/liter.
Barium.....	5.
Cadmium.....	0.005.
Chromium.....	0.1.
Mercury.....	0.002.
Nitrate ²	10 (as N).
Nitrite ²	1 (as N).
Selenium.....	0.05.
Organics:	
Acrylamide.....	Treatment technique.
Alachlor.....	0.002.
Aldicarb.....	0.01.
Aldicarb sulfoxide.....	0.01.
Aldicarb sulfone ²	0.04.
Atrazine.....	0.003.

TABLE 5.—PROPOSED MCLs—Continued

Compound	MCL (mg/l)
Carbofuran.....	0.04.
Chlordane.....	0.002.
Dibromochloropropane.....	0.0002.
o-Dichlorobenzene.....	0.6.
cis-1,2-Dichloroethylene.....	0.07.
trans-1,2-Dichloroethylene.....	0.1.
1,2-Dichloropropane.....	0.005.
2,4-D.....	0.07.
Epichlorohydrin.....	Treatment technique.
Ethylbenzene.....	0.7.
Ethylene dibromide.....	0.00005.
Heptachlor.....	0.0004.
Heptachlor epoxide.....	0.0002.
Lindane.....	0.0002.
Methoxychlor.....	0.4.
Monochlorobenzene.....	0.1.
PCBs (as Decachlorobiphenyl).....	0.0005.
Pentachlorophenol.....	0.2.
Styrene.....	² 0.005/0.1.
Tetrachloroethylene.....	0.005.
Toluene.....	2.
Toxaphene.....	0.005.
2,4,5-TP (Silvex).....	0.05.
Xylenes (total).....	10.

¹ MCL for fibers exceeding 10 μ m in length.

² MCL for total nitrate and nitrite=10.0 mg/l (as N).

³ EPA proposes an MCL of 0.1 mg/l based upon a Group C classification and an MCL of .005 based on a B₂ classification.

As noted earlier, the SDWA directs EPA to set the MCL "as close to" the MCLGs "as is feasible." The term, "feasible," means "feasible with the use of the best technology, treatment techniques, and other means, which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking costs into consideration)." SDWA section 1412(b)(5). Each national primary drinking water regulation which establishes an MCL must list the technology, treatment techniques, and other means which the Administrator finds to be feasible for meeting the MCL (SDWA section 1412(b)(6)).

The present statutory standard for "best available technology" (BAT) under 1412(b)(5) represents a change from the provision prior to 1986, which required EPA to judge feasibility on the basis of "best technologies generally available" ("BTGA"). The 1986 amendments to the SDWA changed BTGA to BAT and added the requirement that BAT must be tested for efficacy under field conditions, not just under laboratory conditions. The legislative history explains that Congress removed the term, "generally" to assure that MCLs "reflect the full extent of current technology capability." (S. Rep. No. 56, 99th Cong., 1st Sess. at 6 (1985)). Read

together with the legislative history, EPA has concluded that the statutory term, "best available technology," is a broader standard than "best technology generally available" and that this standard allows EPA to select a technology that is not necessarily in widespread use, as long as it has been field tested beyond the laboratory. In addition, EPA believes this change in the statutory requirement means that the technology selected need not necessarily have been field tested for each specific contaminant. Rather, EPA may project operating conditions for a specific contaminant using a field tested technology from laboratory or pilot systems data.

Based on the statutory directive for setting the MCLs, EPA derives the MCLs based on an evaluation of (1) the availability and performance of various technologies for removing the contaminant, and (2) the costs of applying those technologies. Other factors which are considered in determining the MCL include the ability of laboratories to measure accurately and consistently the level of the contaminant with available analytical methods. For carcinogens the Agency also evaluates the health risks that are associated with various levels of the contaminants with the goal of ensuring that the risks at the MCL fall within the 10^{-4} to 10^{-6} risk range that the Agency considers protective of public health and therefore achieves the overall purpose of the SDWA.

EPA's initial step in deriving the MCL is to make an engineering assessment of technologies which are capable of removing a contaminant from drinking water. This assessment determines which of those technologies are "best." EPA reviews the available data to determine technologies which have the highest removal efficiencies, are compatible with other water treatment processes, and are not limited to a particular geographic region. A detailed discussion of EPA's engineering assessment of the available technologies for treating each contaminant and the proposed BAT(s) is contained in Section IV-B below.

Based on the removal capabilities of the various technologies, EPA calculates the level of each contaminant that is achievable by their application to relatively clean raw water sources. (See H.R. Rep. 1185, 93rd Cong., 2nd Sess. at 13 (1974); 132 Cong. Rec. S6287, May 21, 1986, statement of Sen. Durenberger.)

When considering costs, EPA decides whether the technology is reasonably affordable by regional and large metropolitan public water systems. This

standard was established when the SDWA was enacted in 1974 (see H.R. Rep. No. 93-1185 at 18 (1974)) and reaffirmed when the Act was amended in 1986 (see 132 Cong. Rec. S6287 (May 21, 1986) (statement of Sen. Durenberger)). EPA also evaluates the total national compliance costs. This evaluation considers the number of systems that will have to install treatment in order to comply with the MCL. The resulting national costs vary depending upon the concentration level chosen as the MCL. The lower the MCL, the greater the number of systems that may have to install BAT in order to achieve compliance. EPA believes that national costs should be considered by the Agency as part of its determination of what MCL level is "feasible".

The feasibility of setting the MCL at a precise level is also influenced by laboratory ability to measure reliably for the contaminant. EPA derives practical quantitation levels (PQLs) which reflect the level that can be measured by good laboratories under normal operating conditions within specified limits of precision and accuracy. (A detailed explanation of the PQL is contained in section IV-A, below.) Because compliance with the MCL is determined by analysis with approved analytical techniques, the ability to analyze consistently and accurately for a contaminant at the MCL is important to enforce a regulatory standard. Thus, the feasibility of meeting a particular level is affected by the ability of analytical methods to determine with sufficient precision and accuracy whether such a level is actually being achieved. This factor is critically important in determining the MCL for contaminants for which EPA proposes to set the MCLG at zero, a number which by definition cannot be measured. Limits of analytical detection require that the MCL be set at some

level greater than the MCLG for these contaminants. In these cases, EPA examines the reduction capability of BAT and the accuracy of analytical techniques as reflected in the PQL to determine the appropriate MCL level.

EPA also evaluates the health risks that are associated with various contaminant levels in order to insure that the MCL adequately protects the public health. For drinking water contaminants, EPA sets a reference risk range for carcinogens at 10^{-4} to 10^{-5} excess individual risk from lifetime exposure. Most regulatory actions in a variety of EPA programs generally target this range using conservative models which are not likely to underestimate the risk. Since the underlying goal of the Safe Drinking Water Act is to protect the public from adverse effects due to drinking water contaminants, EPA seeks to insure that the health risks associated with MCLs for carcinogenic contaminants are not significant.

Below is a detailed discussion of the Agency's derivation of the proposed MCLs.

A. Analytical Methods

The SDWA directs EPA to set an MCL for a contaminant "if, in the judgment of the Administrator, it is economically and technologically feasible to ascertain the level of such contaminant in water in public water systems." (SDWA section 1401(1)(C)(ii)). To make this threshold determination for contaminants proposed today, EPA evaluated the availability, costs, and the performance of analytical techniques which measure drinking water contaminants. This evaluation is discussed below. EPA also considered the ability of laboratories to measure consistently and accurately for a contaminant (i.e., the PQL) to determine the appropriate MCL.

The reliability of analytical methods is critical at the maximum contaminant level. Therefore, each analytical method was evaluated for accuracy or recovery (lack of bias) and precision (good reproducibility) at the MCL range(s). The primary purpose of this evaluation is to determine:

- Whether analytical methods exist to measure drinking water contaminants;
- Reasonable expectations of technical performance by analytical laboratories at the MCL level(s); and
- Analytical costs.

The selection of analytical methods considers the following factors:

- (a) Reliability (i.e., precision/accuracy) of the analytical results;
- (b) Specificity in the presence of interferences;
- (c) Availability of enough equipment and trained personnel to implement a national monitoring program (i.e., laboratory availability);
- (d) Rapidity of analysis to permit routine use; and
- (e) Cost of analysis to water supply systems.

1. Inorganic Chemicals

Analytical methods exist to measure each inorganic contaminant covered by today's proposed rule. Table 6 lists the analytical methods currently approved for the inorganics (see 40 CFR Part 141, Subpart C). The analytical methods listed in Table 6 have been used for many years to determine compliance with the current MCLs.

Table 7 lists the analytical methods that EPA is proposing today to comply with the proposed monitoring requirements. EPA has updated the original references to the most recent editions of the manuals including the atomic absorption methods for metals, and the colorimetric, spectrophotometric and potentiometric methods for nitrate.

TABLE 6.—CURRENTLY APPROVED METHODOLOGY FOR INORGANIC CONTAMINANTS

Contaminant	Methodology ⁷	EPA ¹	Reference (Method Number)		
			ASTM ²	SM ³	Other
Barium.....	Atomic absorption; direct aspiration.....	208.1		301A-IV	
	Atomic absorption; furnace technique.....	208.2			
	Inductively-coupled plasma.....	200.7A ⁶			
Cadmium.....	Atomic absorption; direct aspiration.....	213.1	D3557-78A or B	301A-II or III	
	Inductively-coupled plasma.....	200.7A ⁶			
	Atomic absorption; furnace technique.....	213.2			
Chromium.....	Atomic absorption; direct aspiration.....	218.1	D1687-77D	301A-II or III	
	Atomic absorption; furnace technique.....	218.2			
	Inductively-coupled plasma.....	200.7A ⁶			
Mercury.....	Manual cold vapor technique.....	245.1	D3223-79	301A-VI	
	Automated cold vapor technique.....	245.2			
Nitrate.....	Colorimetric brucine ⁸	352.1	D992-71	419D	

TABLE 6.—CURRENTLY APPROVED METHODOLOGY FOR INORGANIC CONTAMINANTS—Continued

Contaminant	Methodology ¹	EPA ¹	Reference (Method Number)		
			ASTM ²	SM ³	Other
Selenium	Spectrometric; cadmium reduction.....	353.3	D3867-79B	419C	
	Automated hydrazine reduction.....	353.1			
	Automated cadmium reduction.....	353.2	D3867-79A	605	
	Ion selective electrode.....			93MM-79 ⁵	
	Ion chromatography.....	300.0			
	Atomic absorption; furnace technique.....	270.2			
	Atomic absorption; gaseous hydride.....	270.3	D3859-79	301A-VII	1-3667-78 ⁴

¹ "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268 (EPA-600/4-79-020), March 1979. Available from ORD Publications, CERL, EPA, Cincinnati, OH 45268.

² Annual Book of ASTM Standards, Part 31 Water, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

³ "Standard Methods for the Examination of Water and Wastewater," 14th edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1975.

⁴ Techniques of Water Resources Investigation of the U.S. Geological Survey, Chapter A-1, "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Book 5 (1979, Stock #024-001-03177-9). Available at Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

⁵ "Methods Manual—93 Series Electrodes," Form 93 MM/9790, pp. 3-6, 1979. Orion Research Inc., Cambridge, MA.

⁶ "Inductively-Coupled Plasma Atomic Emission Analysis of Drinking Water," Appendix to Method 200.7, March 1987, U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.

⁷ For approved analytical procedures for metals, the technique applicable to total metals must be used.

⁸ EPA is proposing to delete this method.

TABLE 7.—PROPOSED METHODOLOGY FOR INORGANIC CONTAMINANTS

Contaminant	Methodology ^{1,1}	EPA ¹	Reference (Method Number)		Other
			ASTM ²	SM ³	
Asbestos	Transmission Electron Microscopy.....	EPA ⁹			
Barium	Atomic absorption; furnace technique.....	208.2		304	
	Atomic absorption; direct aspiration.....	208.1		303C	
	Inductively-coupled plasma.....	200.7A ⁶			
	Atomic absorption; furnace technique.....	213.2		304	
Cadmium	Inductively-coupled plasma.....	200.7A ⁶			
	Atomic absorption; furnace technique.....	218.2		304 ⁷	
Chromium	Inductively-coupled plasma.....	200.7A ⁶			
	Manual cold vapor technique.....	245.1	D3223-80	303F	
	Automated cold vapor technique.....	245.2			
Mercury	Atomic absorption; furnace technique.....	353.3	D3867-85B	418C	
	Automated hydrazine reduction.....	353.1			
Nitrate	Automated cadmium reduction.....	353.2	D3867-85A	418F	
	Ion selective electrode.....				WeWWG/ 5880 ⁵ B-1001 ¹⁰
	Ion chromatography.....	300.0			
	Spectrophotometric.....	354.1			
Nitrite	Automated cadmium reduction.....	353.2	D3867-85A	418F	
	Manual cadmium reduction.....	353.3	D3867-85B	418C	
	Ion chromatography.....	300.0			B-1011 ¹⁰
	Atomic absorption; gaseous hydride.....	270.3	D3859-84A	303E	I-3667-85 ⁴
Selenium	Atomic absorption; furnace technique.....	270.2	D3859-84B	304 ⁸	

¹ "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268 (EPA-600/4-79-020), March 1983. Available from ORD Publications, CERL, EPA, Cincinnati, OH 45268.

² Annual Book of ASTM Standards, Vol. 11.01, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

³ "Standard Methods for the Examination of Water and Wastewater," 16th edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.

⁴ "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Techniques of Water-Resources Investigations of the U.S. Geological Survey Books, Chapter A1, 1985, Open-File Report 85-495. Available from Open-File Services Section, Western Distribution Branch, U.S. Geological Survey, MS 306 Box 24525, Denver Federal Center, Denver, CO 80225.

⁵ "Orion Guide to Water and Wastewater Analysis," Form WeWWG/5880, p. 5, 1985. Orion Research, Inc., Cambridge, MA.

⁶ "Inductively-Coupled Plasma Atomic Emission Analysis of Drinking Water," Appendix to Method 200.7, March 1987, U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.

⁷ The addition of 1 mL of 30% H₂O₂ to each 100 mL of standards and samples is required before analysis.

⁸ Prior to dilution of the Se calibration standard, add 2 mL of 30% H₂O₂ for each 100 mL of standard.

⁹ "Analytical Method for Determination of Asbestos Fibers in Water," EPA-600/4-83-043, September 1983, U.S. EPA, Environmental Research Laboratory, Athens, GA 30613.

¹⁰ "Waters Test Method for the Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography," Method B-1011, Millipore Corporation, Waters Chromatography Division, 34 Maple Street, Milford, MA 01757.

¹¹ For approved analytical procedures for metals, the technique applicable to total metals must be used.

EPA is proposing to withdraw its approval of the colorimetric brucine method for nitrate because strict controls are necessary in the heating step, resulting in high data variability. Both the American Society for Testing and Materials and "Standard Methods" discontinued publication of this method.

In addition to those analytical methods approved for compliance with the current inorganic MCLs, a new analytical technique, ion chromatography developed by the Millipore Corporation, is available. Ion chromatography is used to analyze nitrate. It uses an ultraviolet detector

and a single column. Comparability data has been gathered on both the Millipore Corporation method and on EPA's Method 300.0 (ion chromatography based method). The comparability data indicate that these two analytical techniques are comparable in terms of precision and accuracy. The study

report is in the docket for this proposed rule. Public comments are requested on whether EPA should approve the Millipore analytical method for nitrate analysis.

EPA is proposing MCLs for two inorganic contaminants, nitrite and asbestos, not previously regulated. EPA is proposing four analytical methods to determine nitrite using the spectrophotometric, colorimetric or ion chromatography techniques. These methods have been available for some time and use procedures similar to those used for nitrate analyses. EPA also evaluated existing analytical methods for asbestos and determined that transmission electron microscopy (TEM) is the best available technique. However, some major drawbacks of TEM exist. They are: (1) The initial capital outlay is expensive for many laboratories (in the order of \$200,000 for equipment), (2) the analytical cost may run from \$300 to \$500 per sample, (3) analysis requires specialized facilities and highly trained personnel, and (4) currently the availability of equipped laboratories is limited. The compliance monitoring requirements proposed later in this rule reflect these limitations. EPA believes that sufficient analytical capacity will exist for those water systems that are vulnerable to asbestos contamination to conduct monitoring in the time frame specified in the proposed rule.

EPA has determined that the analytical methods listed in Table 7 are technically and economically available for inorganic monitoring. The analytical costs associated with analyzing the metals (barium, cadmium, chromium, mercury and selenium) and the inorganic anions (nitrate and nitrite) are \$20 to \$30 per metal per sample and \$10 to \$20 per nitrate/nitrite sample. EPA believes these analytical costs are affordable. (The actual analytical costs may vary with the laboratory, analytical technique selected, the total number of samples and other factors.) The number of laboratories that routinely participate in EPA's Water Supply and Water Pollution performance evaluation studies indicates that many laboratories having the capability to conduct analysis for the metals and nitrate/nitrite exist. Furthermore, EPA believes that it is economically and technologically feasible for systems to monitor for asbestos as prescribed in the proposed rule. To ensure that enough laboratories exist to analyze for asbestos, EPA is proposing that public water systems have five years from publication of the final rule to complete

the asbestos monitoring. [See section on Compliance Monitoring Requirements.]

Below is a description of the proposed techniques. For precision and accuracy information on the proposed analytical methods, EPA refers readers to the references listed in Table 7. EPA requests public comments on the technical adequacy of the proposed analytical techniques.

a. Metals—Atomic Absorption Methods—Metals in solution may be determined by atomic absorption spectroscopy. There are two techniques that may be used: direct aspiration (AA) and the graphite furnace technique (GFAA). In direct aspiration, the sample is aspirated into a flame and atomized. A light beam is directed through the flame into a monochromator and onto a detector that measures the amount of light absorbed by the atomized element in the flame. Because each metal has its own characteristic absorption wavelength, a source lamp composed of that element is used. This makes the method relatively free from spectral or radiation interferences. The amount of energy of the characteristic wavelength absorbed in the flame is proportional to the concentration of the element in the sample. In the furnace technique, a sample is placed in the graphite tube in the furnace, evaporated to dryness, charred and atomized. As a greater percentage of the available analyte atoms are vaporized and dissociated for absorption in the graphite tube, lower concentrations may be determined.

Atomic absorption is applicable to the determination of barium, cadmium, chromium, mercury and selenium. The specific requirements for analyzing these metals using atomic absorption techniques vary with the metal and/or the concentration. When the direct aspiration atomic absorption technique does not provide adequate sensitivity (in addition to the furnace technique), other specialized procedures are available. The determination of selenium is achieved by conversion to its hydrides prior to aspiration into an argon-hydrogen flame. The determination of cadmium and chromium at low concentrations requires a chelation with ammonium pyrrolidine dithiocarbamate and extraction into methyl isobutyl-ketone prior to aspiration into an air-acetylene flame. Determination of mercury is by a cold vapor technique.

Inductively-Coupled Plasma (ICP)—Atomic Emission Spectrometric Method (ICP-AES)—This method (also known as "EPA Method 200.7") describes a technique for the simultaneous or sequential multi-element determination of trace elements in solution. This

method applies to three metals included in this proposal: barium, cadmium, and chromium. The method measures atomic emissions by an optical spectroscopic technique. Samples are nebulized and the aerosol that is produced is transported to the plasma torch where excitation occurs. Characteristic line emission spectra are produced by a radio frequency ICP. The spectra are dispersed by a grating spectrometer and the intensities of the lines are monitored by photomultiplier tubes. The photocurrents from the photomultiplier are processed and controlled by a computer system. A background correction technique is required to compensate for variable background contribution to determine trace elements. Background levels must be measured adjacent to analyte lines on samples during the analysis.

The appendix to Method 200.7 entitled, "Inductively Coupled Plasma—Atomic Emission Analysis of Drinking Water" must be followed in processing drinking water supply samples prior to ICP emission spectrometric analysis. This appendix describes a technique for concentrating the sample prior to analysis. Method 200.7 is not sensitive enough for the analysis of cadmium samples at the MCL level proposed in this rule unless samples containing this element are concentrated prior to analysis. This concentration technique improves the sensitivity of ICP to other elemental contaminants as well.

b. Anions (Nitrate and Nitrite)—Manual Cadmium Reduction—This method is used to analyze nitrite or combined nitrite/nitrate. For combined nitrite and nitrate, the sample is passed through a column containing granulated copper-cadmium to reduce nitrate to nitrite. The nitrite is determined by diazotizing with sulfanilamide and coupling with N-(1-naphthyl)ethylenediamine dihydrochloride to form a highly colored azo dye which is measured spectrophotometrically. Carrying out this procedure first with, and then without, the copper-cadmium reduction step permits the calculation of the nitrate value by subtracting the combined nitrite/nitrate measurement.

Automated Cadmium Reduction—This method is similar to the manual cadmium reduction method except that the azo dye is measured colorimetrically using an automated procedure.

Automated Hydrazine Reduction—This method is used to determine combined nitrite/nitrate in drinking water samples. Nitrate is reduced to nitrite with hydrazine sulfate and the nitrite is determined by diazotizing with

sulfanilamide and coupling with N-(1-naphthyl)ethylenediamine dihydrochloride to form a highly colored azo dye which is measured colorimetrically.

Ion Selective Electrode—This method is used to determine nitrate. The nitrate electrode consists of an electrode body and a replaceable pretested sensing module. The sensing module contains a liquid internal filling solution in contact with a gelled organophilic membrane containing a nitrate ion-selective ion exchanger. When the membrane is in contact with a nitrate solution, an electrode potential develops across the membrane. This potential, which depends on the level of free nitrate ion in solution, is measured against a constant reference potential with a digital pH/mV meter or specific ion meter.

Ion Chromatography Method—This method is used to determine nitrite and nitrate. A small volume of the sample is introduced into an ion chromatograph. The separation of ions is based on their relative affinities for a low capacity, strongly basic anion exchanger (guard and separator column). The separated anions are then directed onto a strongly acidic cation exchanger (suppressor column) where they are converted to their highly conductive acid form. Detection of ionic species is carried out by monitoring the electrical conductivity in a micro cell. The separated species are identified on the basis of retention times as compared to standards. Quantitation is by measurement of peak area or peak height. The response given by an ion is a function of its ionic conductivity and identification is a function of its order of elution from the column.

Another ion chromatographic method for determining nitrite and nitrate in drinking water was recently developed by the Millipore Corporation. Instead of a conductivity detector and dual columns used in the EPA method (one of which acts as a suppressor column), this method uses an ultraviolet detector and a single column (with electronic suppression). Precision and accuracy data from a single laboratory were gathered for nitrate. Nine replicates of a drinking water sample containing 10 mg/l of nitrate were analyzed. The accuracy measured by the percent recovery was 101 percent and the precision measured by the relative standard deviation was 2 percent.

Millipore Corporation data for the single column method was analyzed and compared to the approved EPA Method 300.0. For five samples data were provided for the EPA Method 300.0 and the proposed single column method.

Statistical data analysis which compared the precision and accuracy of both methods indicated that for four of the five samples no statistically significant differences in precision existed. For the remaining sample, the Millipore method was significantly more precise than the EPA Method 300.0. Though there were some statistical differences in recoveries between the Millipore Corporation and EPA Method 300.0 methods, for four of five drinking water samples, the differences were extremely small compared with the nitrate concentrations tested. The recovery data from the remaining sample showed no statistical difference between the two methods.

Spectrophotometric—This method is used to determine nitrite. The nitrite is analyzed by diazotizing with sulfanilamide. The diazonium compound thus formed is coupled with N-(1-naphthyl)ethylenediamine dihydrochloride to produce a reddish-purple colored azo dye which is measured in a spectrophotometer at 540 nm.

c. Asbestos—Transmission Electron Microscopy—This method is used to determine the number of asbestos fibers per liter, fiber size (length and width), size distribution and the total mass. This method also distinguishes between chrysotile and amphibole asbestos. In this method, a variable known volume of water sample is filtered through a 0.1 micrometer filter to trap asbestos fibers and the filter is then carbon coated. A small portion of the carbon coated filter with deposited fibers is placed on an electron microscope grid and the filter material is removed by gentle solution in organic solvent. The material remaining on the electron microscope grid is examined in a transmission electron microscope (TEM). The asbestos fibers are identified by their morphology and electron diffraction patterns and their lengths and widths measured. The elemental composition is determined by energy dispersive x-ray analysis. This technique is very useful in the verification of asbestos fibers since it quickly distinguishes between asbestos and non-asbestos fibers. The concentration in million fibers per liter (MFL) is calculated by counting the fibers, calculating the amount of filtered water, and determining the ratio of the total filtered area to the sample filter area.

2. Synthetic Organic Chemicals

Numerous analytical techniques exist to determine volatile synthetic organic chemicals (VOCs) and other synthetic organic chemicals such as pesticides and polychlorinated biphenyls (PCBs).

These methods generally involve the use of a gas chromatograph (GC) or a high pressure liquid chromatograph (HPLC) with either conventional detectors or a mass spectrometer.

a. Volatile Organic Chemicals (VOCs). Five analytical methods for VOC analyses exist. EPA believes these methods are economically and technologically feasible for determining compliance with one or more of the proposed VOC MCLs. The five methods are specified below:

(1) U.S. EPA Method 502.1, "Volatile Halogenated Organic Compounds in Water by Purge and Trap Gas Chromatography"

(2) U.S. EPA Method 502.2, "Volatile Organic Compounds in Water by Purge and Trap Capillary Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"

(3) U.S. EPA Method 503.1, "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography"

(4) U.S. EPA Method 524.1, "Volatile Organic Compounds in Water by Purge and Trap Gas Chromatography/Mass Spectrometry"

(5) U.S. EPA Method 524.2, "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography/Mass Spectrometry"

These five methods were approved for the analysis of the eight regulated VOCs and unregulated VOCs promulgated in July, 1987 (see 52 FR 25714, July 8, 1987). The VOCs in this proposed rule (cis-1,2-dichloroethylene, 1,2-dichloropropane, monochlorobenzene, o-dichlorobenzene, styrene, tetrachloroethylene, toluene, trans-1,2-dichloroethylene, ethylbenzene, and xylene) were included in the monitoring requirements for unregulated VOCs in the 1987 rule. EPA refers readers to that rule for specific information on laboratory availability, method specificity in the presence of interferences, rapidity, and analytical costs. EPA believes that the analytical methods listed above are technically and economically available for routine use. The incremental analytical costs to analyze the proposed VOCs will be minimal since systems are already required to monitor for the original eight VOCs by using the same analytical techniques.

Each of the five methods require headspace-free water samples. The volatiles from these samples are stripped by an inert gas that flows into a trapping column where they are adsorbed. The compounds are thermally desorbed from the column and backflushed onto the head of a GC.

column. This is followed by the separation of constituents in the GC column and measurement with a specific detection system.

Method 502.1 recommends the use of a column containing 1% SP-1000 on Carbowax-B for the separation of constituents that are detected with a halide specific detector (HSD). Either an electrolytic conductivity detector (ELCD) or a microcoulometric detector are recommended for separation. This method may be used to determine halogenated VOCs. The single laboratory accuracy and precision were determined by analyzing replicate samples of finished drinking water and raw source water spiked at levels of 0.2 or 0.4 µg/l. The accuracy, expressed as average percent recoveries, ranged from 85 to 110 percent and the precision, expressed as percent relative standard deviations, ranged from 3.5 to 20 percent.

Method 502.2 also recommends the use of a VOCOL wide-bore capillary column to separate constituents. These constituents are detected with a photoionization detector and a halide specific detector in series. Precision and accuracy of this method is similar to Methods 502.1 and 503.1. The single laboratory accuracy and precision were determined by analyzing reagent water spiked at 10 µg/l. The results using the photoionization detector show the accuracy expressed as average recoveries ranged from 93 to 109 percent, and the precision expressed as relative standard deviations ranged from 0.8 to 9.5 percent. Using the Hall electrolytic conductivity detector, average recoveries ranged from 86 to 109 percent and relative standard deviations ranged from 1.5 to 8.3 percent.

Method 503.1 recommends using a column containing 5 percent SP-1200+1.79% Bentone 34 on Supelcoport to separate constituents which are then analyzed with a photoionization detector (PID). This method may be used to analyze aromatic and unsaturated VOCs. The single laboratory accuracy and precision were determined by analyzing replicate samples of finished drinking water and raw source waters spiked at levels of 0.4 or 0.5 µg/l. The accuracy, expressed as average percent recoveries, ranged from 74 to 100 percent and the precision expressed as percent relative standard deviations ranged from 2.8 to 16.8 percent.

Method 524.1 recommends the use of a column containing one percent SP-1000 on Carbowax B to separate constituents detected with a mass spectrometer. VOCs are identified by comparing their mass spectra to the spectra of standards analyzed under identical conditions.

Each VOC in this proposed rule can be analyzed using this method. The single laboratory accuracy and precision were determined for various VOCs by analyzing replicate samples of reagent water spiked at levels of 1 to 5 µg/l. The accuracy expressed as average percent recovery ranged from 90 to 113 percent and the precision expressed as percent relative standard deviations ranged from 3.4 to 18.2 percent.

Method 524.2 recommends the use of either a VOCOL wide-bore or a narrow-bore capillary column to separate constituents. These constituents are detected with a mass spectrometer. Precision and accuracy of this method is similar to Method 524.1. The single laboratory accuracy and precision were determined for various VOCs by analyzing replicate samples of reagent water spiked at levels from 0.1 to 10 µg/l. The accuracy expressed as average percent recovery ranged from 83 to 109 percent and the precision expressed as relative standard deviations ranged from 3.9 to 19.9 percent.

b. *Pesticides.* The EPA developed six analytical methods for pesticides. Two of the methods can be used to screen for the presence of polychlorinated biphenyls (PCBs). (See also the discussion of PCBs analysis below.) EPA proposes using these methods, as listed below, to analyze for pesticides and to screen for PCBs.

(1) U.S. EPA Method 504, "1,2-Dibromoethane (EDB) and 1,2-Dibromo-3-chloropropane (DBCP) in Water by Microextraction and Gas Chromatography", 1986. Contaminants Analyzed: Dibromochloropropane, Ethylene Dibromide.

(2) U.S. EPA Method 505, "Analysis of Organohalide Pesticides and Aroclors in Drinking Water by Microextraction and Gas Chromatography", 1986. Contaminants Analyzed: Alachlor, Atrazine, Chlordane, Heptachlor, Heptachlor Epoxide, Lindane, Methoxychlor, and Toxaphene.

(3) U.S. EPA Method 507, "Determination of Nitrogen- and Phosphorus-Containing Pesticides in Ground Water by Gas Chromatography with a Nitrogen-Phosphorus Detector", 1987. Contaminants Analyzed: Alachlor and Atrazine.

(4) U.S. EPA Method 508, "Determination of Chlorinated Pesticides in Ground Water by Gas Chromatography with an Electron Capture Detector", 1987. Contaminants Analyzed: Chlordane, Heptachlor, Heptachlor Epoxide, Lindane, and Methoxychlor.

(5) U.S. EPA Method 515.1, "Determination of Chlorinated Acids in Ground Water by Gas Chromatography

with an Electron Capture Detector", 1987. Contaminants Analyzed: 2,4-D, 2,4,5-TP (Silvex), entachlorophenol.

(6) U.S. EPA Method 531.1, "Measurement of N-Methyl Carbamoyloximes and N-Methyl Carbamates in Ground Water by Direct Aqueous Injection HPLC with Post Column Derivatization", 1987. Contaminants Analyzed: Aldicarb, Aldicarb Sulfoxide, Aldicarb Sulfone, Carbofuran.

The sampling procedures for SOC are specified in each method. Because of their volatility, EDB and DBCP samples are collected headspace-free. With the exception of Method 531.1, which uses direct injection of a filtered water sample, all of the SOC methods use a solvent extraction procedure to extract the analyte(s). This may be followed by derivatization or cleanup steps prior to chromatographic analysis. The constituents are then separated in a chromatographic column and measured with a specific detection system.

Method 504 measures volatile pesticides EDB and DBCP. Although these compounds may be analyzed using purge-and-trap methods, the sensitivity is improved using a liquid-liquid extraction and an electron capture detector. The method recommends the use of a narrow-bore fused silica, GC capillary column for constituent separation. The single laboratory accuracy and precision were determined by analyzing replicate tap water samples spiked at levels from 0.030 µg/l to 50 µg/l. The results show accuracy, expressed as percent average recoveries, ranged from 90 to 114 percent, and precision, expressed as percent relative standard deviation, ranged from 4.7 to 11.8 percent for these compounds.

Method 505 measures alachlor, atrazine, chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, toxaphene and screens for PCBs. This method uses the same liquid-liquid extraction procedure as Method 504. Similarly, separation, identification, and measurement are by capillary column GC with an electron capture detector. The single laboratory accuracy and precision was determined by analysis of replicate samples of reagent, ground, and tap water matrices spiked generally at low µg/l to submicrogram/l levels. With the exception of the very low levels for heptachlor, accuracy generally ranged from about 80 to 120 percent and precision generally ranged from about 3 to 20 percent for the method analytes.

Method 507 measures certain nitrogen- and phosphorus-containing

pesticides, including alachlor and atrazine. Method 508 measures chlordane, heptachlor, heptachlor epoxide, lindane and methoxychlor. The methods are identical, except for the detection system. Both methods use a liquid-liquid extraction procedure, separation with a fused silica GC capillary column. For Method 507 detection is by nitrogen-phosphorus (NPD); for Method 508 detection is by electron capture detector. Method 507 reported a 119 percent recovery and 10 percent relative standard deviation for alachlor. Method 508 recoveries ranged from 67 to 120 percent and relative standard deviations ranged from 3 to 18 percent for the five proposed analytes.

Since Methods 507 and 508 were developed to analyze a large number of pesticides, States or utilities that want to monitor for more pesticides than are covered in Method 505 may want to use these methods. Otherwise, Method 505 is preferable to Methods 507 and 508 because it covers the same analytes and it is cheaper and easier to use.

Method 515.1 measures 2,4-D, 2,4,5-TP (Silvex) and pentachlorophenol (as well as other chlorinated acid herbicides). This method uses liquid-liquid extraction with ether and either a packed column or capillary column for constituent separation. These constituents are then measured with an electron capture detector. The single laboratory accuracy and precision was determined by analyzing replicate samples of reagent water and/or drinking water. The results indicated average recoveries ranged from 63 percent to 88 percent and relative standard deviations ranged from 4 percent to 13 percent for the three pesticides. Method 515.1 is similar to Method 515 and measures the same contaminants. However, Method 515.1 includes a clean-up procedure and uses only capillary columns for the separation of the constituents.

Method 531.1 measures aldicarb, aldicarb sulfoxide, aldicarb sulfone, and carbofuran. Unlike the other methods described above, this is a high pressure liquid chromatography (HPLC) method instead of a GC method. The water sample is filtered and a 400 μ l aliquot is injected into a reverse phase HPLC column which separates the components. After elution from the column, the analytes are hydrolyzed and reacted with o-phthalaldehyde to form a highly fluorescent compound. This compound is then detected with a fluorescence detector. Single laboratory precision and accuracy was determined in reagent water using spikes of 2 to 3 μ g/l. The recoveries ranged from 88 to

112 percent and the relative standard deviations ranged from 6 to 21 percent.

The analytical methods described above for analyzing the pesticides listed in this proposal were developed recently. However, most of these methods use gas chromatography (GC) instrumentation which is available in most analytical laboratories. Methods 531 and 531.1 utilize high pressure liquid chromatography (HPLC). This instrumentation is not as widely available as GC, but it is common in many of the larger analytical laboratories. The analytical costs of the GC and HPLC methods are estimated at \$200 or less per sample analyzed.

All available methods require second column confirmation of any positives. Although there are no GC/MS methods presently available, EPA is investigating GC/MS methods for those analytes which use gas chromatography. EPA will evaluate GC/MS methods for compliance monitoring as they become available.

c. Polychlorinated Biphenyls (PCBs). Polychlorinated biphenyls (PCBs) are a class of compounds which have widely varying physical and chemical properties. These compounds have very low solubility in water and tend to be adsorbed to suspended matter in natural water. The tendency for adsorption increases with the degree of chlorination and with the organic content of the adsorbent. The persistency of PCBs in the environment increases with the degree of chlorination.

Aroclors are technical mixtures of a number of individual PCBs made by the partial chlorination of biphenyl. Two hundred and nine possible compounds can result from the partial or total chlorination of biphenyl and around 100 individual compounds have been detected in various Aroclor mixtures. Individual Aroclor mixtures are designated by a set of four digits.

The analysis of PCBs in environmental samples is complex because of the large number of compounds involved. Most available PCB analytical methods are adaptations of chlorinated pesticides procedures. The most common approach is to determine PCBs as Aroclors because of the complexity of interpreting the raw data (chromatograms) and because of the lack of other standards. In Methods 505 and 508, PCBs can be determined as Aroclors. This procedure is at best approximate when the sample resembles one of the Aroclor standards. The identification of PCBs, measured as Aroclors, in finished drinking water is particularly difficult because the treatment processes (e.g., coagulation,

sedimentation) remove specific PCBs at different rates and the sample is not likely to match any of the Aroclor standards. Hence quantitation in drinking water samples using Methods 505 and 508 is not realistic. However, because these methods are quite sensitive, they can be used as a qualitative screen for PCBs.

EPA has investigated other approaches to determine PCBs in drinking water that do not involve Aroclor pattern recognition. One approach is based on the exhaustive chlorination (i.e., perchlorination) of the biphenyl ring of the PCB compounds to form decachlorobiphenyl. Perchlorination methods have been studied for many years because it is relatively simple to determine one component, decachlorobiphenyl, instead of a complex mixture. In general, these perchlorination methods have been used for screening samples for PCBs, but not for quantitative purposes because the precision of this technique has been poor.

Recently, EPA adapted a procedure that appears to provide very good precision at the concentration level of concern (i.e., 0.0005 mg/l). Method 508A, "Total Polychlorinated Biphenyls by Perchlorination/Gas Chromatography," extracts a one-liter sample followed by conversion of PCBs to decachlorobiphenyl. Antimony pentachloride is used in the perchlorination step. A capillary column and an electron-capture detector are used in the gas chromatographic measurement. This method is relatively simple and sensitive. Recoveries in tap water spiked at 0.0005 mg/l each of biphenyl and six Aroclors averaged 110 percent with a relative standard deviation of 8 percent. A problem with this procedure is that biphenyl and other non-PCB contaminants may produce false positives.

EPA is proposing the following approach to analyze PCBs. Methods 505 or 508 will be used to screen samples for PCBs. Methods 505 and 508 utilizing capillary columns can separate PCB isomers from other contaminants. These methods can detect environmentally degraded PCBs with some certainty. Samples with detectable PCBs (that is peaks within retention time windows for PCB isomers) must be reanalyzed using Method 508A to quantitate PCBs.

EPA believes that the problem of quantitation using Methods 505 and 508 and the problem of interferences with Method 508A are addressed by using the three methods in tandem as described above. The procedure EPA has proposed minimizes the false positive problem

because most samples with interfering substances will be screened out using Methods 505 or 508. Those samples having PCBs present can be quantified using method 508A. EPA believes that it is reasonable and conservative to determine compliance based upon the quantitative result of Method 508A. EPA requests comments on the protocol to screen and quantitate PCBs.

EPA is proposing the use of the three methods, as listed below, for the compliance monitoring requirement for PCBs.

(1) U.S. EPA Method 505, "Analysis of Organohalide Pesticides and Aroclors in Drinking Water by Microextraction and Gas Chromatography," 1986.

(2) Method 508, "Determination of Chlorinated Pesticides in Ground Water by Gas Chromatography with an Electron Capture Detector," 1987.

(3) Method 508A, "Total Polychlorinated Biphenyls (PCBs) by Perchlorination/Gas Chromatography." Method 508A is used to quantitate PCBs (as decachlorobiphenyl).

Public comments are requested on the proposed approach to measure PCBs in drinking water and on the proposed analytical methods.

3. Method Detection Limits and Practical Quantitation Levels

Generally, EPA defines the method detection limit (MDL) as the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the true value is greater than zero. The practical quantitation level (PQL) is the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. Differences between the MDLs and PQLs are expected, and the PQL is generally about five to ten times the MDL for relatively clean matrices such as finished drinking water. (See 52 FR 25699 (July 8, 1987) and 50 FR 46906 (November 13, 1985) for a detailed discussion on MDLs and PQLs.)

The PQL is determined through interlaboratory studies, such as performance evaluation (PE) studies. However, if data are not available from interlaboratory studies, the PQLs are estimated by setting the PQL at a higher concentration than the MDL. In such cases, EPA believes that a PQL set at ten times the MDL achieved by good laboratories is generally a fair expectation during routine operation of most qualified State and commercial laboratories. The use of "five times the MDL" instead of "ten times the MDL" to set the PQL may be recommended when other considerations suggest that the

PQL should be lower (e.g., see discussion on the PQL for vinyl chloride at 52 FR 25700, July 8, 1987).

As noted previously, EPA evaluates the PQL as part of its determination of what level is as close to the MCLG as feasible. Consideration of the PQL is especially important for those contaminants for which EPA is proposing MCLGs at zero. Since the "zero level" cannot be measured, EPA evaluates the performance of available analytical techniques to ascertain which level greater than zero can be measured within acceptable limits of precision and accuracy. Therefore, for the carcinogenic contaminants, the proposed MCLs are all equal to or greater than their PQLs.

a. *Inorganics.* EPA has estimated MDLs and PQLs for the proposed analytical techniques. These are summarized in Tables 8 and 10. The following discussion summarizes the derivation of the MDLs and PQLs for the IOCs. It should be noted, however, that the PQLs for these contaminants are all lower than their MCLGs. Therefore, the PQL in these cases are not a limiting factor in deriving the proposed MCLs.

Detection limits for IOCs are traditionally based on a concentration that corresponds to a specified instrument signal to noise ratio (i.e., peak height to background). Most detection limits given in Table 8 are estimated in this manner. The detection limits for Inductively Coupled Plasma (ICP) using the concentration technique (the numbers in parentheses in Table 8) were calculated based upon a different approach known as method detection limit (MDL). The MDL approach involves the determination of detection limits using a procedure defined in Appendix B to 40 CFR Part 136. EPA is using the MDL procedure outlined in Appendix B to calculate limits of detection for analytes in all newly developed methods.

The PQLs for inorganics are determined based primarily upon the MDLs and the results from performance evaluation (PE) studies. Nitrite and asbestos are exceptions. No PE data is available for these two contaminants. EPA estimates the nitrite PQL is the same as the PQL for nitrate because the same methods are used and analyses are conducted in a similar manner. Also the detection limits for these two contaminants are similar (see Table 8). The PQL for asbestos is estimated to be ten times the MDL or 0.1 million fibers per liter. The PQLs for nitrite and asbestos will be verified in future studies.

The PQLs for the remaining inorganics (barium, cadmium, chromium, mercury,

nitrate, and selenium) are determined using EPA and State laboratory data from Water Supply (WS) PE studies #12-17. These results are considered to be optimum since they are drawn from experienced laboratories operating under conditions where they knew they were being tested with standard samples in distilled water without interferences. Actual day to day operations in a wide variety of laboratories using "real" samples in natural water would be expected to produce less accurate results with wider performance ranges especially at lower concentrations.

The following procedure has been used to determine the PQLs for inorganic contaminants (except nitrite and asbestos) using the PE study data:

1. Regression equations were generated for precision and accuracy using the EPA and State laboratory data for each inorganic contaminant except nitrate. The regression equations for nitrate were generated using the data from all laboratories because EPA and State laboratories tend to use automated methods which produce more stringent acceptance limits.

2. The percent recovery and relative standard deviation were calculated at the proposed MCLs using the regression equations generated from the data for each of the inorganics. The percent recovery and relative standard deviation were used to estimate the 95 percent confidence limits. The percent recovery, relative standard deviation, and the 95 percent confidence limits for the six inorganics are summarized in Table 9.

3. EPA and State laboratory data for the six inorganics were evaluated to determine the range as a percent of the true value. This range most closely approximates the 95 percent confidence limits estimated from the regression equations. The range of the true value is summarized in Table 9.

4. The PQLs were set at a concentration where at least 75 percent of EPA and State laboratories are within the specified acceptance range. The PQLs for the six inorganics are summarized in Table 10.

The following example illustrates this procedure. The regression equations for chromium based on the data from WS studies #12-17 are:

$$X = 0.996T + 0.203$$

$$S = 0.0635T + 0.501$$

where X is the mean recovery, T is the true concentration, and S is the standard deviation. The proposed MCLG for chromium is 0.1 mg/l. The regression equations are solved using 0.1 mg/l as the true concentration. The calculated

mean recovery is divided by the true concentration and multiplied by 100 to obtain the percent recovery. The calculated standard deviation is divided by the true concentration and multiplied by 100 to obtain the relative standard deviation. The percent recovery is 100 percent and the relative standard deviation is 7 percent when the MCLG for chromium is set at 0.1 mg/l. The 95 percent confidence limits are estimated as $100 \pm 2(7)$ percent [percent recovery $\pm (2)$ (relative standard deviation)] or 86 to 114 percent of the "true" value. Thus, ± 15 percent of the "true" value most closely approximated the 95 percent confidence limits. The PQL is then determined from the WS studies #12-17 data for ± 15 percent of the "true" value. These data are summarized in Table 11.

The data in Table 11 demonstrate that the percentage of laboratories within \pm

15 percent of the "true" value remained fairly constant over the concentration range except for the first concentration. The concentrations in Water Supply studies #12-17 ranged from 11 to 132 $\mu\text{g/l}$. The data at the lowest concentration (5.10 $\mu\text{g/l}$) was obtained from Water Pollution study #11. The percentage of laboratories within ± 15 percent of the "true" value is considerably lower at 5.10 $\mu\text{g/l}$ than at any of the other concentrations. The lower percentage at 5.10 $\mu\text{g/l}$ is due to two factors. The first is that different laboratories participated in the Water Pollution and Water Supply studies. The second is that laboratory performance was less accurate as the analyte concentration decreased. Decreasing the concentration resulted in a percentage decrease of laboratories within ± 15 percent of the "true" concentration. For concentrations greater than 5.10 $\mu\text{g/l}$,

the percentage of laboratories within 15 percent of the "true" value remained fairly constant. It is greater than 75 percent at all concentrations greater than 5.10 $\mu\text{g/l}$. Because PQLs are set at a concentration where at least 75 percent of EPA and State laboratories are within the specified acceptance range, the PQL for chromium was assumed to be between 5.10 $\mu\text{g/l}$ and 11.0 $\mu\text{g/l}$. For chromium, with an MCLG of 0.1 mg/l, the PQL was set at 0.01 mg/l. The PQL was set at the higher end of the acceptance range so that greater precision can be required. For more information on how the PQLs for inorganic contaminants were determined, see the *Methods and Monitoring Document for IOCs*. Public comments are requested on the approach used to determine the PQLs for inorganic contaminants and on the proposed PQLs for these contaminants.

TABLE 8. DETECTION LIMITS FOR AVAILABLE ANALYTICAL METHODS

Contaminant	Proposed MCL (mg/l)		Detection limit (mg/l) ²
Asbestos.....	7 MFL.....	Transmission Electron Microscopy.....	0.01 MFL
Barium.....	5.....	Atomic Absorption; furnace technique.....	0.002
		Atomic Absorption; direct aspiration.....	0.1
		Inductively Coupled Plasma.....	¹ 0.002(0.001)
Cadmium.....	0.005.....	Atomic Absorption; furnace technique.....	0.0001
		Inductively Coupled Plasma.....	¹ 0.001
Chromium.....	0.1.....	Atomic Absorption; furnace technique.....	0.001
		Inductively Coupled Plasma.....	¹ 0.007(0.001)
Mercury.....	0.002.....	Manual Cold Vapor Technique.....	0.0002
		Automated Cold Vapor Technique.....	0.0002
Nitrate.....	10 (as N).....	Manual Cadmium Reduction.....	0.01
		Automated Hydrazine Reduction.....	0.01
		Automated Cadmium Reduction.....	0.05
		Ion Selective Electrode.....	1
		Ion Chromatography.....	0.01
Nitrite.....	1 (as N).....	Spectrophotometric.....	0.01
		Automated Cadmium Reduction.....	0.05
		Manual Cadmium Reduction.....	0.01
		Ion Chromatography.....	0.004
Selenium.....	0.05.....	Atomic Absorption; furnace.....	0.002
		Atomic Absorption; gaseous hydride.....	0.002

¹ Using concentration technique in Appendix A to EPA Method 200.7.

² See text.

TABLE 9. 95 PERCENT CONFIDENCE LIMITS FOR INORGANICS

Inorganic contaminant	MCLG (mg/l)	Percent recovery	Relative standard deviation	95 Percent confidence limits (percent of true value)
Barium.....	5	97	5	87-107
Cadmium.....	0.005	93	10	73-113
Chromium.....	0.1	100	7	86-114
Mercury.....	0.002	99	14	71-127
Nitrate.....	10	100	6	88-112
Selenium.....	0.05	97	12	73-121

TABLE 10. INORGANIC ACCEPTANCE LIMITS AND PQLs

Inorganic contaminant	MCLG (mg/l)	Acceptance limits (plus or minus percent of the true value)	PQLs (mg/l)
Barium.....	5	15	0.15
Cadmium.....	0.005	20	0.002
Chromium.....	0.1	15	0.01
Mercury.....	0.002	30	0.0005
Nitrate.....	10	10	0.4
Nitrite ¹	1	10	0.4
Selenium.....	0.05	20	0.01

¹ Nitrite is assumed to have the same acceptance limits and PQL as nitrate because the same methods are used to analyze samples for both inorganics and the analyses are conducted in a similar manner.

TABLE 11.—EPA AND STATE LABORATORY DATA FOR CHROMIUM

T.V. (μg/l)	No. of labs	Percentage of labs within ±15 percent T.V.
5.10 ¹	44	55
11.0.....	64	77
14.3.....	62	81
16.5.....	46	83
28.6.....	47	85
30.8.....	41	83
35.7.....	62	89
44.1.....	41	83
64.3.....	62	90
78.6.....	63	94
92.9.....	47	91
110.....	64	89
132.....	46	87

T.V. = "true" value or reference concentration.
Note: Data obtained from Water Supply Studies #12-17.

¹ Data at this concentration are obtained from Water Pollution study #11.

b. *Synthetic Organic Chemicals.* This proposal contains EPA estimates of MDLs and PQLs for the volatile organic compounds (VOCs), pesticides, and polychlorinated biphenyls (PCBs). The VOCs, pesticides, and PCBs are discussed separately below because the approach to estimate MDLs and PQLs for each is different. The different approaches result from the type and amount of available performance data.

The VOCs were included in Water Supply performance studies. In addition, other VOC performance data are also available. EPA has evaluated these available data to estimate the VOC MDLs.

The analytical methods for pesticides were only developed recently and consequently were not included in the Water Supply studies. The analytical method to quantitate PCBs was recently adapted to measure PCBs as decachlorobiphenyl. EPA conducted a special interlaboratory study to estimate MDLs and PQLs for the pesticide/analytes. The following discussion summarizes the derivation of the MDLs and PQLs for the VOCs, pesticides, and PCBs.

Volatile organic compounds (VOCs)—A survey of seven U.S. EPA laboratories and EPA contract laboratories reported MDL averages ranging from 0.0002 to 0.0005 mg/l for the ten proposed VOCs. The MDL range of 0.0002 to 0.0005 mg/l is the result of measurements made by a

few experienced laboratories under non-routine and very controlled conditions. These levels are not expected to be representative of the capabilities of a cross-section of good laboratories performing compliance VOC measurements on a routine basis.

The PQLs for the proposed VOCs were primarily based upon the results of MDL surveys of EPA and non-EPA laboratories and from the Water Supply performance evaluation studies. EPA considered the PQLs to determine the proposed VOC maximum contaminant levels. As noted previously, the PQLs are critical to determine the MCLs for carcinogenic contaminants with MCLGs of zero.

Table 12 summarizes recent Water Supply (WS) performance evaluation data from EPA and State laboratories (WS Study #17 for tetrachloroethylene data and WS Study #18 for all other listed VOCs). The performance evaluation studies establish acceptance limits between ±20 percent and ±40 percent of the reference "true" value for VOC concentrations between 1 and 10 μg/l. The data from WS Studies #17 and 18 show that approximately 74 percent of all performance samples analyzed were within ±20 percent of the true value and about 95 percent within ±40 percent of the true value. These results are similar to the results achieved by EPA and State laboratories for the eight VOCs promulgated in July, 1987. (See 52 FR 25690, July 8, 1987).

TABLE 12.—PERFORMANCE OF EPA AND STATE LABORATORIES ANALYZING VOCs IN WATER SUPPLY PERFORMANCE EVALUATION STUDIES

Compound	T.V. (μg/l)	No. of labs	No. (and percent) labs within ±20 percent T.V. ¹	No. (and percent) labs within ±40 percent T.V. ¹
cis-1,2-Dichloroethylene.....	4.62	31	19 (61)	27 (87)
trans-1,2-Dichloroethylene.....	0.81	34	18 (53)	25 (74)
Chlorobenzene.....	1.33	42	24 (57)	36 (86)
	8.58	42	31 (74)	41 (98)
o-Dichlorobenzene.....	1.77	32	22 (69)	29 (91)
	7.58	35	28 (80)	31 (89)
1,2-Dichloropropane.....	1.06	36	20 (56)	27 (75)
	6.39	42	30 (71)	38 (90)
Ethylbenzene.....	1.26	40	27 (68)	35 (88)
	6.29	42	30 (71)	39 (93)
Styrene.....	2.43	29	22 (76)	25 (86)
	12.2	30	23 (77)	27 (90)
Tetrachloroethylene.....	2.18	37	27 (73)	35 (95)
	8.74	38	34 (89)	37 (97)
Toluene.....	1.66	41	29 (71)	38 (93)
	11.6	42	37 (88)	41 (98)
Xylene-O.....	2.26	19	15 (79)	19 (100)
	9.70	19	14 (74)	18 (95)

¹ T.V. = "True Value".

The studies indicate that the number of laboratories producing data outside the acceptance limits generally

increases as the analyte concentration decreases. At concentrations less than 5 μg/l, 53 percent to 79 percent of the

laboratories were within ±20 percent of the true value for each VOC tested. At concentrations greater than 5 μg/l, 71

percent to 89 percent of the laboratories were within ± 20 percent of the true value for each VOC tested. If the ± 40 percent acceptance limits are used, a similar trend indicating more laboratories able to perform within the limits exists. Because experienced laboratories operated under conditions where they knew they were being tested with standard samples, these results are considered optimum. EPA expects that the actual percentage of private

commercial laboratories able to meet the specified performance limits will likely be lower.

EPA summarized the results from other non-EPA/State laboratories participating in performance evaluation studies. Table 13 indicates that about 62 percent of the laboratories are within ± 20 percent of the true value and about 82 percent of the laboratories are within ± 40 percent of the true value. (This compares with 74 percent and 95

percent of the EPA/State laboratories for the ± 20 percent and ± 40 percent acceptance limits, respectively.) Forty percent to 65 percent of non-EPA/State laboratories were within ± 20 percent of the true value at concentrations below 5 $\mu\text{g/l}$ for individual analytes whereas 60 percent to 74 percent were within ± 20 percent of the true value at concentrations greater than 5 $\mu\text{g/l}$.

TABLE 13.—PERFORMANCE OF NON-EPA AND NON-STATE LABORATORIES ANALYZING VOCs IN WATER SUPPLY

Performance Evaluation Studies

Compound	T.V. ($\mu\text{g/l}$)	No. of labs	No. (and percent) labs within ± 20 percent T.V. ¹	No. (and percent) labs within ± 40 percent T.V. ¹
cis-1,2-Dichloroethylene.....	4.62	120	77 (64)	99 (83)
trans-1,2-Dichloroethylene.....	0.81	116	46 (40)	77 (66)
Chlorobenzene.....	1.33	126	80 (63)	103 (82)
	8.58	132	98 (74)	116 (88)
o-Dichlorobenzene.....	1.77	118	59 (50)	91 (77)
	7.58	124	74 (60)	95 (77)
1,2-Dichloropropane.....	1.06	123	72 (58)	95 (77)
	6.39	132	93 (70)	113 (86)
Ethylbenzene.....	1.26	128	76 (59)	107 (84)
	6.29	131	90 (69)	113 (86)
Styrene.....	2.43	112	73 (65)	97 (87)
	12.2	116	84 (72)	99 (85)
Tetrachloroethylene.....	2.18	109	55 (50)	81 (74)
	8.74	108	77 (72)	100 (93)
Toluene.....	1.66	132	71 (54)	102 (77)
	11.6	133	99 (74)	116 (87)
o-Xylene.....	2.26	87	51 (59)	71 (82)
	9.70	88	59 (67)	78 (89)

¹ T.V. = "True Value."

Based on the available data (i.e., interlaboratory method detection limits, and Water Supply performance evaluation study data), EPA estimated PQLs of 0.005 mg/l (or 5 $\mu\text{g/l}$) for the proposed VOCs. These PQLs are consistent with the study results. Most laboratories appear to perform acceptably at concentrations of 5 $\mu\text{g/l}$ or above. Although many laboratories are able to perform acceptably at concentrations below 5 $\mu\text{g/l}$, the number of laboratories achieving acceptable performance decreases at lower concentrations. Consequently, laboratories may not be able to achieve performance within the acceptance range for all VOCs consistently. Although the laboratory approval requirements consider that laboratories will occasionally fall outside the acceptance limits established for individual VOC analytes, the PQLs selected for this proposal are set at a level where adequate performance is expected for most laboratories.

The VOC PQLs as calculated by EPA are approximately ten times the MDLs for these contaminants. EPA believes that the results of these studies and

subsequent analyses confirm that PQLs can be approximated on the basis of MDLs. (See 50 FR 46906, November 13, 1985.) While the estimation approach is not ideal and it is preferable to rely on actual laboratory data, the VOCs study results indicate that PQLs of ten times the MDL are acceptable estimates.

Public comments are requested on the approach used for the determination of PQLs and the PQLs for the proposed VOCs.

Pesticides and PCBs—The proposed analytical methods to determine pesticide concentrations and to screen for PCBs were developed recently. Therefore, these methods were not included in previous performance evaluation studies. Information currently available to EPA to estimate a PQL consists of: (1) The single laboratory calculated MDLs using the procedure described in 40 CFR part 136, Appendix B, and (2) interlaboratory MDLs based on a study conducted by EPA's Environmental Monitoring and Support Laboratory (EMSL) in Cincinnati.

The interlaboratory MDL study verified the single laboratory MDLs for

eighteen analytes using four proposed methods: 504, 505, 515 and 531. These methods were included in this study because they cover the proposed pesticides (atrazine was the only pesticide not included in the interlaboratory MDL study). Seven laboratories participated in this study—three EPA laboratories and four contract laboratories. Five laboratories used Methods 504 and 505 and three laboratories used Methods 515 and 531. The limited number of laboratories evaluating Methods 515 and 531 resulted from a lack of equipment.

The process for calculating interlaboratory MDLs (IMDLs) was as follows: MDLs were determined for each method and analytes using local finished drinking water. Each laboratory "estimated" the detection limit by determining the concentration value for each analyte that corresponded to an instrument signal to noise ratio (i.e., peak height to background). This ratio ranged from 2.5 to 5.0. For each method, each laboratory ran two replicate analyses, one reagent blank and one quality control (QC) sample, through the entire analytical procedure on each of

four days. The precision within each laboratory was estimated from the eight replicates. These estimates were pooled to obtain an average within-laboratory precision estimate. The within laboratory estimate was subsequently used to calculate the IMDL. This IMDL serves as the MDL for an average laboratory.

Table 14 summarizes the single laboratory MDLs and the interlaboratory MDLs (IMDLs) for pesticides and the single laboratory MDL using Method 508A for PCBs. In most cases, the interlaboratory MDLs are similar or somewhat higher than the single laboratory MDLs. Exceptions were methoxychlor and 2,4,5-TP (silvex). The IMDL for these two SOCs was approximately one-tenth the single laboratory MDL. A possible explanation is that the single laboratory MDL for both SOCs was calculated using a sample spiked at a concentration that was high, relative to the detection limit. EPA has observed that if a laboratory uses a concentration many times higher than the detection limit, the calculated MDL value may be deceptively high.

Because performance evaluation data are not available, the PQLs for the pesticide contaminants in this proposal are estimated as ten times the interlaboratory MDLs. (Synthetic Organic Chemicals, Methods and Monitoring Document, 1987.) This approach to determining PQLs when data is not available is supported by previous studies which indicate that PQLs are generally ten times the MDL. The IMDL was selected instead of the single laboratory MDL because the IMDL provides a more realistic expectation of the detection limits achievable by a group of laboratories. The single laboratory MDL for atrazine was used to determine the PQL because atrazine was not included in the interlaboratory study. EPA expects that qualified laboratories should reliably analyze concentrations ten times the method detection limit concentrations. EPA will verify actual laboratory performance at the PQL level in future multilaboratory validation studies and performance evaluation studies.

TABLE 14. INTERLABORATORY METHOD DETECTION LIMITS (IMDLs) AND SINGLE LABORATORY METHOD DETECTION LIMITS (MDLs) REPORTED IN THE ANALYTICAL METHODS¹

	IMDL (mg/l)	MDL (mg/l)
A. Method 505:		
(a) Chlordane	0.00018	0.00014

TABLE 14. INTERLABORATORY METHOD DETECTION LIMITS (IMDLs) AND SINGLE LABORATORY METHOD DETECTION LIMITS (MDLs) REPORTED IN THE ANALYTICAL METHODS¹—Continued

	IMDL (mg/l)	MDL (mg/l)
(b) Toxaphene	0.00108	0.0010
(c) PCBs:		
Aroclor 1016		0.00008
Aroclor 1221		0.015
Aroclor 1232		0.00048
Aroclor 1242		0.00031
Aroclor 1248		0.000102
Aroclor 1254		0.000102
Aroclor 1260		0.000189
(e) Lindane	0.00002	0.000003
(f) Alachlor	0.00015	0.00023
(g) Heptachlor	0.00004	0.000003
(h) Heptachlor Epoxide	0.00002	0.000004
(i) Methoxychlor	0.00011	0.00096
B. Method 504:		
(a) Ethylene Dibromide (EDB)	0.00001	0.00001
(b) Dibromochloropropane (DBCP)	0.00002	0.00001
C. Method 515:		
(a) 2,4-D	0.0001	0.00001
(b) 2,4,5-TP (Silvex)	0.00002	0.00017
(c) Pentachlorophenol	0.00001	0.0000005
D. Method 531:		
(a) Aldicarb	0.0005	0.00013
(b) Aldicarb Sulfoxide	0.0008	0.0008
(c) Aldicarb Sulfone	0.0003	0.0005
(d) Carbofuran	0.0007	0.0009
E. Method 508A:		
(a) PCBs (as Decachlorobiphenyl) ²		
Aroclor 1016		0.0004
Aroclor 1221		0.00036
Aroclor 1232		0.00050
Aroclor 1242		0.00040
Aroclor 1248		0.00021
Aroclor 1254		0.00021
Aroclor 1260		0.00021

¹ Atrazine was not included in the study for determination of IMDLs. The MDL estimated single laboratory MDL for atrazine is 0.0001 mg/l.

² Note: PCB MDLs are calculated as the amount of decachlorobiphenyl produced at the MDL for individual Aroclors.

For EDB and toxaphene, EPA set the PQL at five times the IMDL. Lower contaminant levels are associated with greater difficulty in measurement and consequently less precision and accuracy of applicable analytical methods. However, EPA believes that it is appropriate to accept slightly less precision in measurement if the risk posed by a carcinogenic contaminant is greater than the 10^{-4} to 10^{-6} risk range generally considered by the Agency to be acceptable. For EDB, a level of 0.0001 mg/l (10 times the IMDL) is associated with an increased cancer risk of 3×10^{-4} . For toxaphene, a level of 0.001 (10 times the IMDL) is associated with an increased cancer risk of 3×10^{-4} . Levels of 0.00005 mg/l and 0.005 mg/l (5 times the IMDL) for EDB and toxaphene, respectively, would be associated with lower risks levels approximately equal

to 10^{-4} . EPA recognizes that, at these levels, slightly less precision and accuracy will occur. However, EPA believes that it is appropriate to accept slightly less precision in order to obtain more stringent levels of control. The revised PQLs are consistent with the Agency's policy of regulating carcinogens, within a risk range of 10^{-4} to 10^{-6} . Public comments are requested on this approach.

A concentration level of 0.0005 mg/l of decachlorobiphenyl represents concentrations of 0.0002 to 0.0004 mg/l of the intact Aroclors. Therefore, setting the MCL at 0.0005 mg/l (measured as the decachlorobiphenyl) is within the 10^{-4} to 10^{-6} risk level that the Agency considers protective of public health.

A precise MDL for PCBs (as decachlorobiphenyl) is difficult to calculate, as can be seen from Table 14. The PCB MDL's shown in Table 14 correspond to decachlorobiphenyl levels of 0.2 to 0.0005 mg/l. EPA believes that the MDL for the individual Aroclors determined by perchlorination may be as low as 0.0001 mg/l. A single laboratory validation study using Method 508A was conducted and indicated a linear response with good precision from 0.00005 to 0.005 mg/l when calibration standards were run. The Agency will evaluate performance evaluation study data after this rule is proposed to provide more complete information on the MDLs for the PCBs.

TABLE 15.—PQLs FOR PESTICIDES AND PCBs

Compound	PQL (mg/l)
Aldicarb	0.005
Aldicarb Sulfone	0.003
Aldicarb Sulfoxide	0.008
Atrazine	¹ 0.001
Alachlor	0.002
Carbofuran	0.007
Chlordane	0.002
2,4-D	0.001
Dibromochloropropane (DBCP)	0.0002
Ethylene Dibromide (EDB)	0.00005
Heptachlor	0.0004
Heptachlor Epoxide	0.0002
Lindane	0.0002
Methoxychlor	0.001
PCBs (as decachlorobiphenyl)	² 0.0005
Pentachlorophenol	0.0001
Toxaphene	0.005
2,4,5-TP (Silvex)	0.0002

¹ PQL is 10 times the MDL specified in Method 507.

² EPA is estimating that the PQL for PCBs (as decachlorobiphenyl) is 0.0005 μ g/l. This level is associated with an increased cancer risk of up to 10^{-4} .

Public comments are requested on the PQLs for these contaminants and any additional performance data available.

B. Treatment Technologies, Costs, and Selection of the Proposed MCLs

Section 1412(b)(6) of the Act states that each national primary drinking water regulation which establishes an MCL shall list the technology, treatment techniques, and other means which the Administrator finds to be feasible for meeting the MCL. However, a regulation shall not require the use of any of the technologies, treatment techniques, or other means specified for the purpose of meeting an MCL.

In order to fulfill the requirements of section 1412(b)(6), EPA has identified the best available technologies (BAT) for each chemical listed in this proposal. BAT is determined by identifying available technologies which reduce contaminant concentration levels and by evaluating the costs and commercial availability of the technologies. As noted above, technologies are BAT based upon the following factors: high removal efficiency, general geographic applicability, compatibility with other water treatment processes, and the ability to achieve compliance at a reasonable cost. The criterion used in

determination of whether such technologies are feasible is whether they are reasonably affordable by regional and large metropolitan public water systems (H.R. Rep. No. 93-1185, p.18 (1974)).

Below is a discussion of the technologies that the Agency is proposing as BAT under Section 1412 of the SDWA for the IOCs and SOCs. The proposed BAT were determined on the basis of an evaluation of removal efficiencies of available technologies for each of the contaminants, as well as the costs of installing BAT for large systems. The following discussion also indicates, for each contaminant, the proposed MCL and presents the Agency's rationale for selecting the proposed MCLs. In determining the proposed MCLs based on these technical and economic feasibility considerations, EPA also sought to ensure that the SDWA goal of providing safe drinking water is met.

1. Inorganic Chemicals

Table 16 summarizes the treatment technologies which EPA evaluated and those it is proposing as BAT for

asbestos, barium, cadmium, chromium, mercury, nitrate, nitrite and selenium. Table 17 lists the efficiencies of removal, based on available treatment data, for each technology. Examination of these technologies indicates that, in general, each can reduce contaminant levels from the maximum occurrence levels (as indicated by EPA survey data) to the level of the proposed MCLs. Systems should note that not all technologies may remove contaminants at maximum influent concentrations to below the MCL. Most removal technologies have a range of removal efficiencies. All the BATs at the upper end of the removal efficiency range can remove contaminants to below the MCLs. Table 18 shows the removal efficiencies that would be required of BATs based upon the maximum expected range in influent to effluent concentrations. Influent concentrations correspond to maximum expected levels in drinking water sources, while effluent concentrations correspond to the proposed MCLs.

TABLE 16.—PROPOSED BEST AVAILABLE TECHNOLOGIES TO REMOVE INORGANIC CONTAMINANTS

Inorganic Contaminant	Best available technologies								
	Activated alumina	Coagulation/filtration	Corrosion control	Direct filtration	Diatomite filtration	Granular activated carbon	Ion exchange	Lime softening	Reverse osmosis
Asbestos.....		X	X	X	X				
Barium.....							X	X	X
Cadmium.....		X					X	X	X
Chromium III.....		X					X	X	X
Chromium VI.....		X					X		X
Mercury.....		X ¹				X		X ¹	X ¹
Nitrate and Nitrite.....							X		X
Selenium IV (Selenite).....	X	X						X	X
Selenium VI (Selenate).....	X							X	X

¹ BAT only if influent mercury concentrations do not exceed 10 ug/l. Coagulation/Filtration for mercury removal includes PAC addition or post-filtration GAC column where high organic mercury is present in source water.

TABLE 17.—BAT REMOVAL EFFICIENCIES

Inorganic contaminant	Best available technologies								
	Activated alumina	Coagulation/filtration	Corrosion control	Direct filtration	Diatomite filtration	Granular activated carbon	Ion exchange	Lime softening	Reverse osmosis
Asbestos.....		≥ 95	≥ 90	≥ 70-99	≥ 95				
Barium.....							93-98	90-95	92-98
Cadmium.....		80-95					90-99	98-99	96-98
Chromium III.....		90-99					90	99	82-97
Chromium VI.....		90-99					80-96		82-97
Mercury.....		≥ 40-90				80-100		≥ 60-80	≥ 80
Nitrate and Nitrite.....							75-99		67-95
Selenium IV (Selenite).....	85-95	80-85						45-50	75-99
Selenium VI (Selenate).....	85-95							10	75-99

Reference: U.S. EPA Technology and Cost Documents (11).

¹ BAT only if influent mercury concentrations do not exceed 10 ug/l. Coagulation/Filtration for mercury removal includes PAC addition or post-filtration GAC column where high organic mercury is present in source water.

² Removal efficiencies expected in reducing source water influent levels.

³ Removal efficiencies expected as a corrosion control technique to prevent corrosion of pipe.

TABLE 18.—REQUIRED REMOVAL EFFICIENCIES TO MEET PROPOSED MCLGS

Contaminant	Maximum influent concentration	Proposed MCLG	Percent removal required to achieve MCLG
Asbestos ¹	10 MFL	7 MFL	30
Barium	5 mg/l	5 mg/l	0
Cadmium	0.045 mg/l	0.005 mg/l	89
Chromium	0.050 mg/l	0.1 mg/l	0
Mercury	0.01 mg/l ²	0.002 mg/l	80
	0.10 mg/l	0.002 mg/l	98
Nitrate (as N)	100 mg/l	10 mg/l	90
Nitrite (as N)	10 mg/l	1 mg/l	90
Selenium	0.050 mg/l	0.05 mg/l	0

¹ Asbestos to be regulated at 7 million fibers/liter, for fibers greater than 10 microns in length.

² A level below maximum occurrence but applicable for the usage of some technologies.

Consistent with the legislative history of the SDWA, EPA generally assesses the removal capabilities of technologies as applied to relatively clean source waters.

However, to evaluate the removal capabilities of the IOC technologies, EPA evaluated the maximum occurrence level for these contaminants. Table 17 and 18 demonstrates that, even under the worst case assumption of the maximum occurrence levels, the proposed BATs are capable of reducing contaminant levels to below the MCLGs.

The costs for the removal of specific contaminants, (assuming the same influent to effluent levels cited in Table 18) using the proposed BATs are summarized in Table 19, 20, and 21. The general assumptions used to develop the treatment costs include: capital costs

amortized over 20 years at a 10 percent interest rate; engineering fees; contractor overhead and profit; late 1986 power, fuel, labor, and chemical costs.

Costs may vary from those shown, depending on local circumstances. But, based on available information, these costs are representative of typical system costs using BAT. Costs of treatment will be less than shown in Table 19 if contaminant concentration levels encountered in the raw water are lower than those used for the calculations. For example, if contaminant levels in the raw water is half of the maximum occurrence level then treatment costs could be expected to be approximately 20 to 50 percent lower than the cost in Table 21. However, costs of treatment will be higher if additional system-specific treatment or storage requirements are needed.

TABLE 19.—COST OF CONTAMINANT REMOVAL BY BAT

(Cents/1000 gallons, late 1986 dollars)

Contaminant/BAT	Population Served				
	25-100	500-1000	1001-3300	3300-10,000	> 1,000,000
Asbestos					
Direct Filtration	520	89	49	30	12
Direct Filtration, Modified	320	54	22	9	1
Coagulation/Filtration		120	59	29	8
Coag/Filtration, Modified ¹		18	8	7	1
Diatomite Filtration ¹	130	29	19	18	8
Corrosion Control					
pH adjustment (NaOH)					
—lime addition	170	29	14	8	1
—caustic soda addition	34	9	7	4	3
Alkalinity adjustment					
—soda ash addition	200	38	20	11	3
—sodium bicarbonate addition	190	38	21	13	5
Corrosion Inhibitor (ZnPO ₄)	41	11	5	4	1
Barium					
Ion exchange	230	90	63	54	26
Lime softening		230	130	130	61
Reverse osmosis	460	290	190	160	110
Cadmium					
Ion exchange	230	88	57	52	23
Reverse osmosis	460	250	190	160	110
Coagulation/Filtration		150	76	51	16
Coag/Filtration, Modified ¹		57	28	12	2
Lime softening		220	130	130	59
Chromium					
Coagulation/Filtration (III & VI)		140	81	45	13
Coag/Filtration, Chem. ¹ (III & VI)		14	6	2	1
Ion exchange, two bed (III & VI)	340	110	64	62	23
Ion exchange (III)	200	86	53	39	13
Ion exchange (VI)	220	86	51	38	13
Lime softening (III)		220	130	88	55
Reverse osmosis (III & VI)	340	200	150	120	82
Mercury, with 10 µg/l influent					
Granular activated carbon ¹	200	62	45	52	31
Coagulation/filtration + act. carbon		210	130	130	54
Coagulation/filtration modif. w/PAC ²		82	41	52	34
Lime softening, modifying ¹		43	21	9	1
Reverse osmosis	620	320	260	220	150
Mercury, with 100 µg/l influent					
Granular activated carbon ²	210	67	50	59	34
Nitrate and/or Nitrite					
Ion exchange	340	150	130	110	77
Reverse osmosis	590	300	250	210	150
Selenium					
Reverse osmosis (IV & VI)	150	62	47	35	17
Activated alumina (IV)	410	76	41	19	6

TABLE 19.—COST OF CONTAMINANT REMOVAL BY BAT—Continued

(Cents/1000 gallons, late 1986 dollars)

Contaminant/BAT	Population Served				
	25-100	500-1000	1001-3300	3300-10,000	> 1,000,000
Lime softening modifying ¹ (IV).....		73	41	24	11
Coagulation/Filtration (IV).....		71	40	19	3
Coag/Filtration, Modified Chem. ¹ (IV).....		18	8	4	1
Activated alumina (VI).....	410	90	55	31	21

Note: Costs derived from EPA technology and costs document, cost supplement (10). Costs include waste disposal cost except where noted.

¹ Waste disposal costs not included.² PAC = Powdered Activated Carbon.TABLE 20.—ESTIMATED CAPITAL COSTS FOR IOC REMOVAL ¹

(Millions of dollars)

Contaminant/BAT	Population served		
	25-100	3,300-10,000	> 1,000,000
Asbestos:			
Direct Filtration.....	0.09	0.54	63
Coagulation/Filtration.....	0.17	0.54	120
Coag/Filtration, Modified ¹	0.01	0.16	0.70
Diatomite Filtration ¹	0.03	0.40	74
Corrosion Control			
pH adjustment (NaOH)			
—lime addition.....	0.03	0.18	1.1
—caustic soda addition.....	0.003	0.04	1.4
Alkalinity adjustment			
—soda ash addition.....	0.04	0.24	1.3
—sodium bicarbonate addition.....	0.04	0.21	1.3
Corrosion Inhibitor (ZnPO ₄).....	0.005	0.08	0.42
Barium:			
Ion exchange.....	0.08	1.1	140
Lime softening.....	0.24	2.3	240
Reverse osmosis.....	0.10	2.7	860
Cadmium:			
Ion exchange.....	0.08	1.1	130
Reverse osmosis.....	0.10	2.6	890
Coagulation/Filtration.....	0.21	1.4	260
Coag/Filtration, Modified ¹	0.07	0.28	2.4
Lime softening.....		2.3	220
Chromium:			
Coagulation/Filtration (III & VI).....	0.19	1.1	210
Coag/Filtration, Chem. ¹ (III & VI).....	0.01	0.03	0.26
Ion exchange, two bed (III & VI).....	0.08	1.4	260
Ion exchange (III).....	0.04	0.42	94

TABLE 20.—ESTIMATED CAPITAL COSTS FOR IOC REMOVAL ¹—Continued

(Millions of dollars)

Contaminant/BAT	Population served		
	25-100	3,300-10,000	> 1,000,000
Ion exchange (VI).....	0.04	0.58	165
Lime softening (III).....	0.24	1.1	190
Reverse osmosis (III & VI).....	0.08	1.8	660
Mercury, with 10 µg/l influent:			
Granular activated carbon ¹	0.056	0.56	91
Coagulation/filtration + act. carbon.....	0.24	2.7	540
Coagulation/filtration modif. w/PAC ²	0.05	0.34	9.5
Lime softening, modifying ¹		0.23	1.3
Reverse osmosis.....	0.11	2.9	1,030
Mercury, with 100 µg/l influent:			
Granular activated carbon ¹	0.063	0.71	100
Nitrate and/or Nitrite:			
Ion exchange.....	0.10	1.7	340
Reverse osmosis.....	0.13	4.1	1,280
Selenium IV & VI:			
Reverse osmosis (IV & VI).....	0.03	0.45	150
Activated alumina (IV).....	0.12	0.38	45
Lime softening modifying dose (IV).....		0.23	1.30
Coagulation/Filtration (IV).....	0.05	0.34	52
Coag/Filtration, Modified Chem. ¹ (IV).....	0.04	0.18	1.5
Activated alumina (VI).....	0.12	0.38	45

Note: Costs derived from EPA technology and costs document, cost supplement (10). Costs include waste disposal costs except where noted.

¹ Waste by-product disposal costs not included.² PAC = Powdered Activated Carbon.

TABLE 21.—ESTIMATED ANNUAL INCREASE IN HOUSEHOLD WATER BILLS FOR IOC REMOVAL

(Dollars household year)

Contaminant/BAT	Population served		
	25-100	3,300-10,000	>1,000,000
Asbestos			
Direct filtration	520	30	12
Direct filtration, modified	320	9	1
Coagulation/filtration		29	8
Coag/filtration, modified ¹		7	1
Diatomite filtration ¹	130	18	8
Corrosion control pH adjustment (NaOH) —lime addition	170	8	1
—caustic soda addition	34	44	3
Alkalinity adjustment —soda ash addition	200	11	3
—sodium bicarbonate addition	190	13	5
Corrosion inhibitor (ZnPO ₄)	41	4	1
Barium			
Ion exchange	230	54	26
Lime softening		130	61
Reverse osmosis	460	160	110
Cadmium			
Ion exchange	230	52	23
Reverse osmosis	460	160	110
Coagulation/filtration		51	16
Coag/filtration, modified ¹		12	2
Lime softening		130	59

TABLE 21.—ESTIMATED ANNUAL INCREASE IN HOUSEHOLD WATER BILLS FOR IOC REMOVAL—Continued

(Dollars household year)

Contaminant/BAT	Population served		
	25-100	3,300-10,000	>1,000,000
Chromium			
Coagulation/filtration (III & VI)		45	13
Coag/filtration, chem. ¹ (III & VI)		2	1
Ion exchange, two bed (III & VI)	340	62	23
Ion exchange (III)	200	39	13
Ion exchange (IV)	220	38	13
Lime softening (III)		88	55
Reverse osmosis (III & VI)	340	120	82
Mercury, with 10 ug/l influent Granular activated carbon ¹	200	52	31
Coagulation/filtration + act. carbon		130	54
Coagulation/filtration modif.w/ PAC ²		52	34
Lime softening, modifying ¹		9	1
Reverse osmosis	620	220	150
Mercury, with 100 ug/l influent Granular activated carbon ¹	210	59	34
Nitrate and/or Nitrite Ion exchange	340	110	77
Reverse osmosis	590	210	150

TABLE 21.—ESTIMATED ANNUAL INCREASE IN HOUSEHOLD WATER BILLS FOR IOC REMOVAL—Continued

(Dollars household year)

Contaminant/BAT	Population served		
	25-100	3,300-10,000	>1,000,000
Selenium			
Reverse osmosis (IV & VI)	150	35	17
Activated alumina (IV)	410	19	6
Lime softening modifying (IV)		24	11
Coagulation/filtration (IV)		19	3
Coag/filtration, modified chem. ¹ (IV)		4	1
Activated alumina (VI)	410	31	21

Note: Costs derived from EPA technology and costs document, cost supplement (10). Costs include waste disposal costs.

¹ Waste by-product disposal costs not included.

² PAC= Powdered Activated Carbon.

The costs in Table 20 include the lowest cost technology required for the treatment and disposal of waste by-products, except where noted in the table. The lowest cost waste disposal alternatives and associated costs, at several population ranges, are identified in Table 22. The disposal of waste by-products generated by the treatment processes increases overall treatment costs for all systems. Because EPA identifies the treatment and disposal technologies that are reasonably available for large metropolitan and regional drinking water systems (i.e., systems serving more than 100,000 persons), waste disposal does not significantly increase the total treatment costs for large systems.

TABLE 22.— LOWEST COST ALTERNATIVES FOR WASTE BY-PRODUCT DISPOSAL

[cents/1,000 gallons drinking water produced]

Treatment	Costs						
	Population	25-100	100-500	500-1,000	1,000-3,300	3,300-10K	>1,000,000
	Flow(mgd)	0.013	0.045	0.133	0.40	1.30	650
SLUDGES:							
Coagulation/filtration							
Sanitary Sewer Discharge							
—Selenium		190	62	28	15	5	1
—Chromium, Cadmium		190	55	27	12	4	0
—Mercury		230	77	35	18	7	1
Dewatering and Land Disposal ¹		300	120	55	30	20	7
Lime Softening							
Dewatering and Land Disposal ¹		550	240	120	80	60	40
Land Application		1200	380	150	80	50	60
Direct Filtration							
Dewatering and Land Disposal ¹		300	120	55	32	20	8
BRINES:							
Ion Exchange							
to Sanitary Sewer							
—Barium, Cadmium, Chromium		100	71	45	25	12	2
—Nitrate, Nitrite		93	62	37	20	10	2
—Selenium		82	52	30	16	8	1
Reverse Osmosis							
Direct Discharge		85	42	20	11	5	0
Sanitary Sewer		220	150	90	47	27	10
Activated Alumina—Selenium only							
Sanitary Sewer		170	70	35	18	9	3
Evaporation Pond/Landfill		300	150	100	80	30	20

Source: Draft, "Technologies and Costs for the Treatment and Disposal of Waste By-products from Water Treatments for the Removal of Inorganic and Radioactive Contaminants" (6).

¹ Dewatering by nonmechanical methods, e.g., lagoons or drying beds.

Brines are generated by ion exchange, reverse osmosis, and activated alumina. The most economical disposal methods for brines are sanitary sewer discharge or, for reverse osmosis, direct discharge of the concentrated waste stream to a receiving body of water. Because permits are needed to discharge brines to surface waters, the water system should contact the wastewater treatment plant prior to discharging brines to a sanitary sewer or the State National Pollution Discharge Elimination System (NPDES) authority for discharging directly to surface waters. Other possible alternatives include evaporation pond dewatering followed by land disposal, and chemical precipitation followed by nonmechanical dewatering (lagoons or drying beds) and land disposal. Sludges are generated by coagulation/filtration, direct filtration, green sand filtration, and lime softening. The most economical disposal method for sludges is discharge to the sanitary sewer. Again, the waste water treatment plant should be contacted prior to discharging to a sanitary sewer. An alternative option may be nonmechanical dewatering (lagoons or drying beds) followed by land disposal. Direct land application for lime softening wastes is also an alternative. Mechanical methods tend to be higher in cost, though technically feasible.

The selection of waste by-product disposal alternatives will be influenced by regulatory constraints and sitespecific conditions. Regulatory constraints include: industrial pretreatment requirements for sanitary sewer discharges, Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste disposal, and effluent limitations for the discharge of some contaminants into local receiving waters (ground waters and surface waters). Site-specific conditions include the availability of sewage disposal, location of disposal sites, climatic factors, cost of land, other economic factors, and other local or regional factors including available manpower and infrastructure characteristics.

The following sections discuss the BAT(s) which EPA is proposing for each of the IOCs, as well as the Agency's rationale for deriving the proposed MCLs.

a. *Asbestos*—(1) *Technologies and Costs*. The Agency has determined that coagulation/filtration, direct filtration, and diatomite filtration are capable of removing asbestos (fiber lengths greater than 10 microns) from drinking water. These technologies fulfill the requirements of Section 1412 of the SDWA as BAT for removal of asbestos from contaminated source waters. Asbestos levels resulting from the

deterioration of asbestos cement (A/C) pipe can be reduced by an effective corrosion control program, including stabilization, utilizing calcium carbonate equilibrium and the addition of corrosion inhibitors.

The deterioration of A/C pipe in distribution systems is principally attributable to the water quality parameters of pH and hardness which contribute to the aggressiveness of water in relation to A/C pipe surfaces. At least one study that examined the incidence of asbestos fiber in distribution water concluded that A/C pipe tapping (i.e., new connections into the pipe network) is probably involved in causing high asbestos fiber concentrations (Millette et al., 1979). In areas where isolated and/or momentary instances of high asbestos fiber concentrations are reported, A/C pipe tapping is a probable major cause. Where A/C pipe is in place, the procedure of tapping into pipes may be modified such that the contaminated segment of water adjacent to the tapping could be released, pumped, or otherwise disposed of in order to prevent deterioration of drinking water quality. Corrosion control technology to prevent A/C pipe deterioration is described below.

Corrosion Control: Calcium carbonate saturation by adding lime prior to entry to the distribution system is effective in

preventing the loss of asbestos fibers from asbestos cement (A/C) pipe. The goal of this type of corrosion control is to achieve a chemical balance in the treated water so that neither excessive deposits of calcium carbonate nor A/C pipe deterioration will occur in the distribution system. Depending upon the raw water quality, corrosion control may require adjusting the pH and alkalinity. Lime, sodium hydroxide, soda ash and sodium bicarbonate are commonly used to adjust pH or alkalinity. Experience in actual distribution systems, field, and laboratory studies indicate that corrosion control measures can check the deterioration of A/C pipe and maintain the levels of asbestos fibers in the drinking water below the proposed MCL. Estimated costs for stabilizing the water with lime addition range from \$1.70/1,000 gallons treated for systems serving 25 to 100 persons to \$0.01/1,000 gallons treated for large systems (those systems serving more than 1,000,000 persons).

Inhibitors. Inhibitors added to the water to control leaching of asbestos fibers from A/C pipe accomplish this function by forming a protective film to serve as a barrier between the water and the A/C pipe surface. Zinc salts such as zinc chloride, zinc sulfate and zinc orthophosphate are suitable inhibitors to protect A/C pipe from aggressive waters. Recent developments in corrosion control indicate that zinc orthophosphate may be the most effective inhibitor since in addition to protecting A/C pipe, it can effectively prevent the corrosion of materials containing lead, copper, and cadmium. Estimated costs to use inhibitors ranges from \$0.41/1,000 gallons treated for small systems (serving 25 to 100 persons) to \$0.01/1,000 gallons treated for large systems.

Where source water is contaminated by asbestos (e.g., from natural geologic erosion, industrial discharge, mineral mining process wastes, etc.), the following filtration techniques are suitable for asbestos fiber removal.

Coagulation/Filtration: Studies show that coagulation/ filtration to remedy asbestos has been shown to be greater than 95 percent effective. Several large metropolitan systems remove asbestos using this technology, where turbidity reduction is also required. The construction of new coagulation/ filtration facilities is cost effective for large systems, especially if turbidity removal is also required. Existing coagulation/filtration treatment can be modified to increase removal efficiencies for asbestos fibers by

optimizing the coagulant dosage, pH, and/or adding polymers. Estimated costs to remove asbestos using conventional coagulation techniques, adjusting pH, and coagulant dosages in existing facilities range from \$0.18/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.01/1,000 gallons treated for large systems (i.e., those serving more than 1,000,000 persons). Construction and operation of new coagulation facilities to remove asbestos from drinking water are estimated to cost from \$1.20/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.08/1,000 gallons treated for large systems.

Direct Filtration: Actual plant operations and pilot plant studies show that direct filtration with proper chemical treatment is suitable to remove asbestos fibers. Modification of existing filtration plants to provide improved removal of existing turbidity and asbestos fibers is feasible and cost effective. This treatment method is feasible and cost effective for both small and large systems. Experience indicates that direct filtration removes 70 to 99 percent of asbestos. Estimated costs to remove asbestos by modifying existing filtration facilities range from \$3.20/1,000 gallons treated for small systems to \$0.01/1,000 gallons treated for large systems. Construction and operation of new direct filtration facilities results in costs ranging from \$0.89/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.12/1,000 gallons treated for large systems.

Diatomite Filtration: Removal of asbestos fibers by diatomite filtration has been shown to be greater than 95 percent efficient. Diatomite filtration is currently used in community water systems to filter relatively clean source waters. Estimated costs for the construction and operation of a diatomite filtration facility range from \$1.30/1,000 gallons treated for small systems to \$0.08/1,000 gallons treated for systems serving more than 1,000 persons. These costs exclude the cost of waste by-product disposal because they are small relative to overall costs.

(2) Proposed MCL for Asbestos

Each technology identified by EPA as BAT is highly efficient in removing asbestos, is currently available, is installed in public water supplies, and is compatible with other water treatment processes in use in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs to large systems of installing these technologies are reasonable. Furthermore, BAT can reduce asbestos from the maximum occurrence level of

10 million fibers/liter (MFL) to the proposed MCLG of 7 MFL, a level greater than the PQL of 0.1 MFL. Therefore, EPA is proposing the MCL at 7 MFL for fibers greater than 10 microns.

b. Barium—(1) Technologies and Costs. The Agency has determined that the technologies of ion exchange, lime softening and reverse osmosis are BAT for barium removal.

Ion exchange: Cation exchange to remove barium is considered BAT in part because of its demonstrated ability to reduce barium concentration levels down to or below the proposed MCLG at reasonable costs. Sodium cation exchange resins and ion exchange equipment are readily available commercially. Sodium cation exchange is successfully used in water treatment facilities to remove 93 to 98 percent of barium from water. Ion exchange treatment is feasible for all system sizes. Barium removal by ion exchange to reduce the concentration in water by 75 to 80 percent ranges from \$2.30/1,000 gallons for small systems to \$0.26/1,000 gallons for large systems. Blending of source and finished waters, where initial barium concentrations are low enough to allow, significantly reduces ion exchange capital requirements and operating costs.

Reverse Osmosis: Reverse osmosis (RO) utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including barium. Most organic matter is also removed, with the exception of many halogenated and low-molecular-weight compounds. This technology is considered BAT for barium because it is effective in removing barium (and other dissolved inorganic substances) at feasible costs. RO is used as a treatment method to reduce contaminants other than barium. Pilot plant studies and laboratory tests indicated that RO can remove 92 to 98 percent of barium.

The estimated cost of using RO to reduce barium levels in surface water sources by 75 to 80 percent ranges from \$4.60/1,000 gallons in small systems to \$1.10/1,000 gallons in large systems.

RO performance is adversely affected by the presence of turbidity, iron, manganese, silica, or scale producing constituents in source water. If pretreatment does not exist to remove these constituents, the cost to install the pretreatment technologies (e.g. pH adjustment, filtration, or scale prevention additives) may be considerable.

In situations where high dissolved solids and/or other contaminants may have to be removed in addition to barium, the RO process may offer an

especially desirable and cost effective approach. If the influent concentration of contaminants allows partial treatment and blending, the above costs may be significantly lower.

Lime Softening: Lime softening can achieve 90 to 95 percent removal of barium at optimum pH levels ranging between 9.2 and 11.6, as indicated by laboratory and pilot plant studies. Lime softening is used on a full scale basis to reduce contaminants other than barium. Estimated costs of lime softening to reduce barium concentrations in surface water sources by 75 to 80 percent range from \$2.30/1,000 gallons for systems serving 500 to 1,000 persons to \$0.61/1,000 gallons for large systems.

(2) **Proposed MCL for Barium.** All of the above barium removal technologies demonstrate high removal efficiencies, are currently available in all geographic regions, have been installed in public water systems, are compatible with other water treatment processes, and can achieve compliance for all the system's water. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The MCLG for barium is 5 mg/l. This concentration is equal to the maximum reported occurrence level for this contaminant in drinking water. EPA is proposing to set the MCL equal to the proposed MCLG (5 mg/l). This level is above the PQL.

c. Cadmium—(1) Technologies and Costs. The Agency proposes that ion exchange, coagulation/filtration, lime softening and reverse osmosis fulfill the requirements of the SDWA as BAT for cadmium removal.

Ion Exchange: Cation exchange is BAT, in part, because it can reduce cadmium levels from maximum occurrence levels to the proposed MCLG at reasonable costs. Sodium cation exchange resins and ion exchange equipment are readily available commercially. Field and pilot plant studies demonstrate that sodium cation exchange can remove 90 to 99 percent of cadmium. (Ion exchange treatment is effective for all system sizes.) Ion exchange to remove cadmium in small systems is \$2.30/1,000 gallons and \$0.23/1,000 gallons for large systems. Blending significantly reduces ion exchange capital requirements and operating costs since only a portion of the raw water must be treated.

Reverse Osmosis: RO utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including cadmium. Most organic matter is also removed with the exception of some halogenated and low-molecular-weight compounds. This technology is BAT because it is effective in removing

cadmium at feasible costs. RO is widely used on a full scale basis to reduce other contaminants. Pilot studies demonstrate that RO can remove 96 to 98 percent of cadmium. Using RO to reduce cadmium costs \$4.60/1,000 gallons for small systems and \$1.10/1,000 gallons for large systems.

RO performance is adversely affected by turbidity, iron, manganese, silica, or scale producing constituents in source water. If pretreatment does not exist to remove these constituents, the cost to install the pretreatment technologies (e.g., pH adjustment, filtration, or scale prevention additives) may be considerable.

If high dissolved solids or other contaminants must be removed in addition to cadmium, RO is especially desirable and cost effective. If the influent concentrations allow the partial treatment and subsequent blending of water, the above costs for treatment may be significantly lower.

Lime Softening: Laboratory and pilot plant studies have demonstrated that lime softening can remove 98 to 99 percent of cadmium at pH levels ranging between 8.5 and 11.5. This technology is BAT because it has been demonstrated to be capable of reducing cadmium concentrations from maximum occurrence levels to the proposed MCLG level. Lime softening is widely and effectively used in water treatment plants to reduce hardness. Estimated costs of providing new lime softening facilities to reduce cadmium range from \$2.20/1,000 gallons for systems serving 500 to 1,000 persons to \$0.59/1,000 gallons for very large systems.

Coagulation/Filtration: Laboratory and pilot plant studies show that conventional coagulation using alum and, in some cases, ferric sulfate coagulant, achieves 80 to 95 percent cadmium removal at pH levels of 8.0 or above. Several studies referenced in EPA technology and cost documents suggest that site-specific raw water quality indicators, such as pH, significantly affect removal efficiencies. Data are not available which identify optimum operating conditions for coagulation/filtration treatment to remove cadmium. This technology is BAT because it is capable of reducing cadmium concentrations to below the proposed MCL. Coagulation/filtration has been used on a full scale basis to reduce other contaminants such as turbidity, particulate matter, and microbial contaminants. Estimated costs of reducing cadmium using coagulation/filtration range from \$1.50/1,000 gallons for systems serving 500 to 1,000 persons to \$0.16/1,000 gallons for large systems.

(2) **Proposed MCL for Cadmium.** The technologies described above are highly efficient in removing cadmium from drinking water, are currently available, are installed in public water systems, and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes the costs for large systems to install ion exchange, lime softening, coagulation/filtration and RO treatment are reasonable. Each of these technologies can reduce cadmium from the maximum levels of occurrence of 0.045 mg/l to the proposed MCLG of 0.005 mg/l. The MCLG proposed is at a level which is greater than the PQL. Therefore, EPA is proposing the MCL for cadmium at 0.005 mg/l.

d. Chromium—(1) Technologies and Costs. Ion exchange, reverse osmosis, coagulation/filtration and lime softening fulfill the SDWA requirements as BAT to remove chromium. Successful installation of several technologies is dependent upon the valence or oxidation state of the chromium present. Chromium is present in water in a trivalent (Cr III) state as a cation, or in a hexavalent (Cr VI) state.

Ion Exchange: The valence of the chromium ions significantly affects the type of ion exchange resin used for removal. Removal of Cr III requires a cation exchange resin while removal of Cr VI requires the use of an anion exchange resin. Laboratory and field studies indicate that both resins are effective for removing chromium from drinking water. Ion exchange softening using standard strong acid synthetic resin and sodium chloride as a regenerant effectively removes Cr III with a 90 percent or greater efficiency. Pilot plant studies indicate that strong base resins are capable of removing 80 to 96 percent of Cr VI. Ion exchange technology is considered BAT in part because of its demonstrated ability to reduce chromium concentrations to levels at or below the proposed MCLG at feasible costs. Treatment is feasible for all system sizes. Removal costs of Cr III from surface waters by cation exchange range from \$2.00/1,000 gallons for small systems to \$0.13/1,000 gallons for large systems. Removal costs of Cr VI from surface waters by anion exchange ranges from \$2.20/1,000 gallons for small systems to \$0.13/1,000 gallons for large systems. Cost effective operation of this technology is dependent upon the amount and proportion of chromium valence species present. If removing both chromium species is required, installation of a cation exchanger in series with an anion

exchanger is required. Costs to operate a two-bed ion exchange system to reduce total chromium levels from surface water by 50 percent ranges from \$3.40/1,000 gallons for small systems to \$0.23/1,000 gallons for large systems.

Reverse Osmosis: RO utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including chromium. Most organic matter is also removed, with the exception of many halogenated and low molecular weight compounds. This technology is considered BAT because it has been demonstrated to be effective in removing chromium (and other dissolved inorganic substances) at feasible costs. RO is used on a full scale basis to reduce contaminants other than chromium. Pilot plant studies demonstrate that RO can remove 82 to 97 percent of chromium. Reducing chromium in surface water sources by 50 percent (assuming pretreatment is in place) ranges from \$3.40/1,000 gallons in small systems to \$0.82/1,000 gallons in large systems.

RO performance is adversely affected by the presence of turbidity, iron, manganese, silica, or scale producing constituents in source water. If pretreatment does not exist to remove these constituents, the cost of installing pretreatment technology (e.g., pH adjustment, filtration, or scale prevention additives) may be considerable.

The RO process is especially desirable and cost effective in situations where high dissolved solids and other contaminants must be removed in addition to chromium. If chromium influent concentration levels allow partial treatment and blending of the water, the above estimated costs may be significantly lower.

Lime Softening: Lime softening can achieve 72 to 99 percent removal of Cr III. At pH levels of 11 to 11.5, pilot plant tests achieved 99 percent Cr III removal. The same studies showed that lime softening is ineffective in removing Cr VI to 20 µg/l. Lime softening has been used on a full scale basis to reduce contaminants other than chromium. Estimated lime softening costs to reduce Cr III concentrations from surface water sources by 50 percent ranges from \$2.20/1,000 gallons for systems serving 500 to 1,000 persons to \$0.55/1,000 gallons for large systems.

Coagulation/Filtration: Laboratory and pilot plant studies indicate that conventional coagulation using ferric sulfate or alum as a coagulant achieves 90 to 99 percent chromium removal. The same studies showed that while ferric sulfate and alum are ineffective for removal of Cr VI, the use of ferrous

sulfate as a coagulant removes up to 98 percent of Cr VI. This technology is considered BAT because it has been demonstrated to be capable of reducing chromium concentrations to meet the proposed MCLG. Estimated costs of reducing chromium levels from surface water sources by 50 percent by using conventional coagulation/filtration techniques range from \$1.40/1,000 gallons for systems serving 500 to 1,000 persons to \$0.13/1,000 gallons for large systems.

(2) **Proposed MCL for Chromium.** The technologies identified above are highly efficient in removing Cr III and Cr VI, either singly or together; are currently available; have been installed in public water systems; are compatible with other water treatment processes in various regions of the U.S.; and can achieve compliance for all the system's water. Based on the above cost data, EPA believes that the large systems BAT costs to remove chromium are reasonable. EPA is proposing the MCL equal to the proposed MCLG of 0.1 mg/l. This level is above the PQL.

e. Mercury—(1) Technologies and Costs. Reverse osmosis, lime softening, granular activated carbon (GAC), and coagulation/filtration, modified by the addition of powdered activated carbon (PAC) or post-filtration GAC, fulfill SDWA requirements as BAT for mercury removal. Occurrence data indicates that maximum concentration levels of total mercury (inorganic and organic) in U.S. waters rarely exceed 10 µg/l. At an influent concentration level above 10 µg/l only GAC sufficiently removes mercury to comply with the proposed MCL.

Granular Activated Carbon (GAC): Pilot plant and laboratory studies indicate GAC can remove 80 to 100 percent of organic and inorganic mercury. The same studies also show that GAC adsorbs organic mercury better than the inorganic mercury ion. Therefore, if both organic and inorganic mercury are present in the water, replacement of the GAC bed will be governed by inorganic mercury breakthrough. GAC is considered BAT, in part, because it is capable of reducing mercury influent concentrations above 10 µg/l to effluent concentrations of 2 µg/l. Removal efficiencies are affected by contact time within the GAC bed and the volume of water treated. GAC is also used in water treatment plants to reduce other contaminants in drinking water. Estimated costs to reduce mercury from 100 µg/l to 2 µg/l by GAC range from \$2.10/1,000 gallons treated for small systems to \$0.34/1,000 gallons treated for large systems.

The following BAT technologies all reduce levels of mercury from relatively clean source water (i.e., mercury levels in the untreated water do not exceed .01 mg/l) to achieve compliance with the proposed MCL.

Reverse Osmosis: RO utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including mercury. Most organic matter is also removed, with the exception of many halogenated and low molecular weight compounds. This technology is considered BAT because it has been demonstrated to be effective in removing mercury (and other dissolved inorganic substances) at feasible costs. RO is capable of removing 80 percent of mercury. RO is currently used in water treatment plants to reduce contaminants other than mercury. Pilot plant studies demonstrated the effectiveness of RO to remove mercury. Estimated costs to reduce mercury by RO from 10 µg/l to 2 µg/l range from \$6.20/1,000 gallons treated in small systems to \$1.50/1,000 gallons treated in large systems.

RO performance is adversely affected by the presence of turbidity, iron, manganese, silica, or scale producing constituents in source water. If pretreatment does not already exist, the cost of installing technology (e.g., pH adjustment, filtration, or scale prevention additives) may be considerable.

The RO process is especially desirable and cost effective in situations where high dissolved solids and other contaminants must be removed in addition to mercury. If mercury influent concentration levels allow partial treatment and blending of water, the above estimated costs may be significantly lower.

Lime Softening: Laboratory studies show lime softening achieves 60 to 80 percent removal of inorganic mercury, provided pH levels are maintained between 10.7 and 11.4. The same studies show that lime softening is ineffective in removing organic mercury. Using this technology is limited to systems where reducing inorganic mercury is necessary to comply with the mercury MCL. Estimated costs to reduce inorganic mercury in surface waters from 10 µg/l to 2 µg/l by modifying the lime softening feed rate at existing treatment plants range from \$0.43/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.01/1,000 gallons for large systems.

Coagulation/Filtration: Laboratory and pilot plant studies demonstrate that conventional coagulation using ferric sulfate achieves 40 to 90 percent removal of inorganic mercury. The use of alum coagulant achieves 30 to 60

percent removal of inorganic mercury. Removal efficiencies are significantly affected by source water turbidity (i.e., inorganic mercury removal increases with turbidity removal by coagulation/filtration). Mercury removal using both iron and aluminum coagulants tends to be less efficient at pH ranges of 6.5 to 9.0.

The same laboratory studies also found that conventional coagulation was not effective in removing organic mercury. However, modification of conventional coagulation by adding powdered activated carbon (PAC) to influent feed water, or adding a post-filtration GAC column, can improve total mercury removal efficiency to over 80 percent. Estimated costs to reduce mercury from surface water sources from 10 µg/l to 2 µg/l by modifying coagulation/filtration treatment by adding PAC ranges from \$0.82/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.34/1,000 gallons treated for large systems. Estimated costs to reduce mercury from surface water sources from 10 µg/l to 2 µg/l using coagulation/filtration with GAC post-treatment range from \$2.10/1,000 gallons treated for systems serving 500 to 1,000 persons to \$0.54/1,000 gallons treated for large systems.

(2) *Proposed MCL for Mercury.* Each of the above treatment technologies efficiently removes mercury, is currently available, is installed in public water systems, and is compatible with other water treatment processes in different regions of the U.S. EPA believes that the cost to large systems to install each of the identified BATs is reasonable. All the above technologies reduce mercury from influent concentration levels of 0.01 mg/l to the proposed MCLG of 0.002 mg/l. However, only GAC effectively reduces mercury from concentration levels above 0.01 mg/l to the MCLG level of 0.002 mg/l, a level greater than the PQL. Therefore, only GAC is BAT when influent concentrations exceed 0.01 mg/l. Therefore, EPA is proposing the MCL at 0.002 mg/l.

f. Nitrate and Nitrite—(1)

Technologies and Costs. Ion exchange and RO fulfill the SDWA requirements as BAT for nitrate/nitrite removal. Both technologies have high nitrate and nitrite removal capacity, are effective in reducing nitrate and nitrite maximum occurrence levels to the proposed MCLG level, and their costs are reasonable for large public water systems.

Another method (though EPA is not defining it as BAT) which may be used for elimination of excess nitrites in source water is chemical oxidation (e.g., breakpoint chlorination) which converts nitrites to nitrates. If the nitrite

concentration exceeds the allowable level and the nitrate concentration is low, then oxidation or breakpoint chlorination (though EPA is not defining it as BAT) may be more economical than RO or ion exchange, unless the nitrate concentration after oxidation exceeds the allowable or treatable level. Since anion exchange resins and RO membranes can be sensitive to chemical oxidants, the point of oxidant injection should be after the ion exchange or RO unit. Approximately 5 parts of chlorine are required to oxidize 1 part of nitrite. Since nitrite in source water is generally indicative of recent sewage or animal waste contamination, breakpoint chlorination is recommended, although oxidation is not specified as a BAT for meeting nitrate and nitrite MCLs.

Ion Exchange: Nitrate and nitrite removal using anion exchange resins as a reversible exchange medium exchanges nitrate and nitrite with chloride ions from the exchange resins. The efficiency and cost of nitrate and nitrite removal by ion exchange is significantly affected by sulfate ions. Because sulfate ions are preferred over nitrate and nitrite by the ion exchange medium, high sulfate source waters increase the load on the resin and result in more frequent sodium chloride regeneration. Field studies demonstrate that nitrate and nitrite removal using ion exchange is effective in water containing concentrations of sulfates as high as 380 mg/l.

Anion exchange has been demonstrated to remove 75 to 99 percent of influent nitrate and nitrite. The same ion exchange resins which remove nitrate also remove nitrite. However, since the resins exhibit a greater preference for nitrate, nitrite breakthrough occurs before the nitrate breakthrough. Therefore, if both nitrate and nitrite are present the anionic resins capacity for nitrite governs the treatment and regeneration cycles.

The costs of removing nitrate and nitrite from ground water using ion exchange technology ranges from \$3.40/1,000 gallons treated for small systems to \$0.77/1,000 gallons treated for large systems. Blending significantly reduces ion exchange capital requirements and operating costs. Blending is effective if a portion of the water is treated by breakpoint chlorination to remove nitrite while another portion is treated by ion exchange to reduce nitrate.

Reverse Osmosis: RO utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including nitrate and nitrite. Most organic matter is also removed, with the exception of many halogenated and low molecular weight compounds. RO is

capable of removing up to 95 percent of nitrate and nitrite at feasible costs. RO is widely used to reduce contaminants other than nitrate and nitrite. Pilot plant studies using RO have demonstrated effective reduction of nitrate and nitrite. Nitrate/nitrite removal from ground water using RO ranges from \$5.90/1,000 gallons treated in small systems to \$1.50/1,000 gallons treated in large systems.

RO performance is adversely affected by the presence of turbidity, iron, manganese, silica, or scale producing constituents in source water. If pretreatment does not already exist, the cost to install the technology (e.g., pH adjustment, filtration, or scale prevention additives) may be considerable.

The RO process is especially desirable and cost effective in situations where high levels of dissolved solids and other contaminants must be removed in addition to nitrate/nitrite. If influent concentration levels of nitrate/nitrite allow partial treatment and blending of water, the above estimated costs may be significantly lower.

(2) *Proposed MCL for Nitrate and Nitrite.* Ion exchange and RO are BAT for nitrate and nitrite removal because both are effective at removing nitrate and nitrite, are currently available and have been installed in public water systems, and are compatible with other water treatment processes in use in different regions of the U.S. In addition, oxidation techniques which convert nitrite to nitrate may be used. Based on the above cost data, EPA believes the treatment cost to a large system is reasonable. Ion exchange and RO can reduce the nitrate/nitrite levels from influent levels of up to 100 mg/l and 10 mg/l to the MCLGs of 10 mg/l and 1 mg/l, respectively. These MCLG levels are greater than the PQL of 0.4 mg/l. Therefore, EPA is proposing the MCL for nitrate and nitrite at 10 mg/l and 1 mg/l, respectively, and a joint standard of 10 mg/l.

g. *Selenium—(1) Technologies and Costs.* The Agency proposes that activated alumina, lime softening, coagulation/filtration, and reverse osmosis fulfill the requirements of the SDWA as BAT for selenium removal. Activated alumina and reverse osmosis are effective in removing selenium IV (selenite) and selenium VI (selenate) from drinking water. Though lime softening and conventional coagulation have a limited capacity for removing selenium VI, these two technologies are used successfully when reduction of selenium IV is sufficient to meet the selenium MCL.

Activated Alumina: The efficiency and cost of selenium removal is significantly affected by the valance state of selenium. Laboratory studies indicate that though activated alumina has a higher capacity for removing selenium IV than selenium VI, this technology is capable of removing 85 to 95 percent of both selenium IV and VI. For small systems this technology may not be cost effective because of special operational requirements. Activated alumina, when not used properly, leaches significant quantities of alumina into the finished water. Therefore, this technology is only recommended where adequate surveillance and maintenance are available.

Successful and cost-effective operation depends upon pH adjustment of the feed water to an optimum range. At the optimum the selenium ion exchanges with hydroxy ion contained in the activated alumina. A second key factor in successful and economical operation is regeneration by sodium hydroxide of the exhausted activated alumina bed to its original state. Selenium adsorption utilizing activated alumina is considered BAT, in part, because it reduces selenium IV and VI concentrations levels to or below the proposed MCLG at feasible costs.

Selenium IV removal from surface water sources by activated alumina ranges from \$4.10/1,000 gallons for small systems to \$0.06/1,000 gallons for large systems. Selenium VI removal from surface water sources by activated alumina ranges from \$4.10/1,000 gallons for small systems to \$0.21/1,000 gallons for large systems.

Reverse Osmosis: RO utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including selenium. Most organic matter is also removed, with the exception of some halogenated and low molecular weight compounds. This technology is considered BAT because it is effective for removing selenium (and other dissolved inorganic substances) at feasible costs. Reverse osmosis has been used on a full scale basis to reduce contaminants other than selenium. Pilot plant studies demonstrate that RO can remove 75 to 99 percent selenium. Costs for reducing selenium by RO by 10 percent range from \$1.50/1,000 gallons in small systems to \$0.17/1,000 gallons in large systems. This technology is especially desirable where high dissolved solids and other contaminants must be removed in addition to selenium.

Lime Softening: Lime softening achieves partial removal of selenium IV. At a pH of 11.5, laboratory tests achieved a 45 to 50 percent removal of

selenium III. Up to 10 percent of selenium VI is removed by lime softening. This technology is considered BAT because it is effective in reducing selenium concentration levels. Lime softening has been used on a full scale basis to reduce contaminants other than selenium from drinking water. Estimated costs of modifying current lime softening treatment to reduce influent selenium IV concentrations by 10 percent in a surface water source range from \$0.73/1,000 gallons for systems serving 500 to 1,000 persons to \$0.11/1,000 gallons for large systems.

Coagulation/Filtration: Laboratory and pilot plant studies demonstrate that coagulation using ferric sulfate as a coagulant removes 80 to 85 percent of selenium IV. This technology is considered BAT in those situations where reducing selenium IV is sufficient to reduce the total selenium concentration. Coagulation/filtration is used on a full scale basis to reduce contaminants other than selenium. The estimated costs of using coagulation/filtration to reduce selenium IV from surface water sources by 10 percent ranges from \$0.71/1,000 gallons for systems serving 500 to 1,000 persons to \$0.03/1,000 gallons for large systems.

(2) **Proposed MCL for Selenium.** Each of the technologies described above effectively removes selenium from drinking water, is currently available, has been installed in public water systems, and is compatible with other water processes in use in different regions of the U.S. Because the maximum occurrence level of 50 µg/l equals the proposed MCLG, all systems should be able to meet with the MCL without treatment. If treatment is necessary, the cost data summarized above indicate that costs to large systems are reasonable. The MCLG is greater than the PQL. Therefore, EPA is proposing the MCL at the MCLG level of 0.05 mg/l.

2. Synthetic Organic Chemicals

The following section discusses EPA's consideration of technologies to remove SOC's and the Agency's determination of proposed BAT's for the SOC's in this notice. In addition, this section discusses the Agency's rationale for the proposed MCLs. The rationale considers treatment technologies, costs, analytical method performance, and the goal of the SDWA to reduce health risks.

a. **Treatment Technologies.** EPA examined a number of technologies for their potential to remove the proposed SOC's. These technologies are discussed in the document "Technologies and Costs For The Removal of Synthetic Organic Chemicals From Potable Water

Supplies" (referred to below as the SOC T&C document). A more complete description of the technologies evaluated can be found in the November 13, 1985 Federal Register Notice (50 FR No. 219, Nov. 13, 1985, p. 46902).

Activated Carbon: Activated carbon is used to treat all the SOC's. The sole exception is epichlorohydrin for which no treatability information exists. Extensive bench-scale testing either in the form of isotherm or dynamic minicolumn testing has been performed. Some pilot and several full-scale evaluations have also been performed. Several of the full-scale evaluations involved either partial replacement of media filters with carbon or powdered activated carbon (PAC) in conjunction with coagulation/sedimentation.

Extensive testing of carbon absorption indicates it is effective in removing a broad spectrum of SOC's. Therefore, it is the most feasible technology in removing SOC's from drinking water and is considered a best available technology.

Aeration: Aeration has been successfully used to test 15 of the SOC's. These tests primarily involved pilot-scale testing of air stripping equipment. The 15 SOC compounds tested represent the more volatile SOC's, many of which are chlorinated solvents. Studies show aeration is as effective as GAC in removing some volatile SOC's and is therefore a best available technology for certain contaminants.

Reverse Osmosis: Reverse osmosis along with other membrane technologies such as ultrafiltration (UF) has been tested for removal of 15 SOC's from water. Tests were primarily bench scale, although some pilot-scale evaluations were recently conducted. While some SOC removals were reported, especially for pesticides, it was not always clear whether the removal was a result of rejection by the membrane or adsorption onto the membrane. Some bench-scale tests indicate that adsorption of particular SOC's may occur, and that once adsorption has occurred, desorption may be difficult.

Because there is limited treatability information on RO (much of which is bench scale) and because there is some question as to how SOC removal occurs, RO is not considered a best available technology. Rather it should be considered as an additional technology which requires further development.

Oxidation: A number of oxidants are available for removing SOC's in drinking water. These include ozone, chlorine, chlorine dioxide, permanganate, hydrogen peroxide, and ultraviolet light (UV) (either by itself or in combination

with any of the other oxidants). The ultimate end-product of complete oxidation is carbon dioxide and water, but the mechanism rarely goes to completion, as intermediate compounds formed during oxidation may be more resistant to oxidation. Currently, limited data is available on removing SOC by oxidation.

Oxidation has been used to treat 20 SOC, primarily using bench-scale evaluations. Oxidation techniques which were evaluated include ozone, chlorine, chlorine dioxide, hydrogen peroxide, potassium permanganate, and ultraviolet light (either alone or in combination with some of the other oxidants).

While oxidation may be effective in degrading certain SOC (especially those with unsaturated bonds), EPA has considerable concern about the degradation products formed by the partial oxidation of some SOC. Because there is limited treatability information on oxidation, much of which is bench scale, oxidation is not considered best available technology. Rather it should be considered as an additional technology that requires further development.

Ozonation has been the most widely tested oxidant because of its use in Europe since the early 1900s as a disinfectant. Currently, about 3,000 facilities worldwide utilize ozone for water treatment. Approximately 40 U.S. treatment plants utilize ozonation for disinfection, color destruction, taste and odor control, and THM (trihalomethane) precursor removal.

Ozone is the most powerful oxidant of the group of commonly used water treatment chemicals. The degree and rate of oxidation depends on the type of SOC, ozone dosage, pH, carbonate alkalinity, other competing organics present, and contact time. In some cases, reports of good destruction of SOC by ozone are more correctly attributable to air stripping of the compound.

Hoigne and Bader (1979) suggest that at a pH less than 9, ozone remains in solution as O_3 and selectively oxidizes SOC. At a higher pH, initiated by hydroxide ions, ozone will decompose rapidly into free radicals, highly reactive and short-lived species, which react non-selectively with oxidizable compounds.

Frank (1985), and others report the ability of ozone to remove aromatic compounds and alkenes in direct proportion to ozone dosage, and the ineffectiveness of ozone for alkane removal. In general, alkenes are more reactive than aromatics, which in turn are more reactive than alkanes. The

apparent reason is that ozone is known to react at points of unsaturation. Alkenes are straight chain (aliphatic), unsaturated hydrocarbons, such as cis- and trans-1,2-dichloroethylene. The aromatics are closed rings of carbon atoms containing double bonds, e.g., toluene and xylene, and are susceptible to oxidation at the double bond. The alkanes, however, are aliphatic compounds with no double bonds, such as DBCP and 1,2-dichloropropane, thus are less susceptible to ozone attack.

With alkenes, destruction decreases with increasing halogen substitutions. A pH increase appears to enhance oxidation. Increasing the ozone dosage improves destruction of alkenes over a wide range of pH. Destruction of aromatics increases in proportion to ozone dose, but is not affected by a change in pH. Alkanes are removed little at low pH regardless of ozone dose, but at pH greater than 9, destruction is enhanced by increasing the ozone dose as free radical reactions occur.

The economic feasibility of ozonation appears to be favorable. The doses for oxidation are generally in the range of 6 mg/l which is three to four times the normal (1.5 to 2.0 mg/l) dose for disinfection and oxidation. Ozonation has the advantage of serving a dual role of disinfection and oxidation, and this may make it an attractive technology for certain systems depending on raw water quality, system size, and other factors. Even though there are still questions regarding reaction kinetics and by-products, it is a promising technology which may be a BAT in the future for particular compounds or groups of compounds. EPA encourages research and welcomes comments on this technology.

Powdered Activated Carbon:

Powdered activated carbon (PAC) is considered an applicable method of applying carbon adsorption to remove SOC. PAC can be added either through dry feed machines or as a carbon slurry. PAC is most frequently used for taste and odor control in conventional coagulation/filtration plants treating surface water since it requires the same facilities (feed equipment, mixing chambers, clarifiers, and filtration) as those plants, as well as additional sludge handling capabilities. Unless these facilities are already in place, PAC is generally not economically feasible to treat drinking water. For the above reasons, GAC is generally the preferred process for ground water systems.

Unlike GAC adsorption, in which the carbon in the bed approaches equilibrium with the influent SOC concentration, PAC approaches

equilibrium with the effluent SOC concentration since it is removed by a settling or filtration process. With the same influent concentration therefore, PAC will have a lower adsorptive capacity than GAC. However, if an SOC enters a surface water source periodically, such as a pesticide or herbicide used on a seasonal basis, PAC can be brought on-line at that time to meet the need, whereas GAC systems must generally remain on-line.

Pilot- and full-scale studies of PAC effectiveness give mixed results, though most studies to date agree that PAC has applicability primarily in locations which have physical constraints (e.g., hydraulic or space). Fewer studies on using PAC to remove organics found in ground water have been conducted primarily because of the need for very large doses of PAC to achieve necessary organic removals. Because of the above reasons, EPA is not defining PAC as BAT at this time.

Conventional Treatment:

Conventional treatment (coagulation/sedimentation/filtration) was used to treat ten SOC, six of which have been evaluated in full-scale installations. The removals for most SOC were poor, typically less than ten percent. It should be noted that influent concentrations in much of this testing were very low, typically less than 5 µg/L.

Since conventional treatment is of limited effectiveness in removing SOC it is not considered best available technology. Rather it should be considered as an additional technology of limited applicability.

b. SOC Best Available Technologies.

In the 1986 SDWA amendments, Congress specified in section 1412(b)(5) of the Act that:

Granular activated carbon is feasible for the control of synthetic organic chemicals, and any technology, treatment technique, or other means found to be the best available for the control of synthetic organic chemicals must be at least as effective in controlling synthetic organic chemicals as granular activated carbon.

EPA considered five basic treatment technologies to remove SOC: GAC, aeration, RO, oxidation, powdered activated carbon, and conventional treatment. In the Agency's judgement, only GAC and PTA are considered BAT for SOC removal at this time. A detailed discussion of GAC and PTA is discussed below.

Polymer addition practices (PAP) is proposed as a treatment technique for control of acrylamide and epichlorohydrin (see discussion in Section IV-C, below). The proposed BATs, either GAC, PTA, PAP, or a

combination, for each of the SOC's are listed in Table 23.

TABLE 23.—PROPOSED BAT FOR SOC'S

SOC	BAT ¹
Acrylamide.....	PAP
Alachlor.....	GAC
Aldicarb.....	GAC
Aldicarb sulfone.....	GAC
Aldicarb sulfoxide.....	GAC
Atrazine.....	GAC
Carbofuran.....	GAC
Chlordane.....	GAC
Dibromochloropropane (DBCP).....	GAC, PTA
1,2-Dichloropropane.....	GAC, PTA
cis-1,2-Dichloroethylene.....	GAC, PTA
trans-1,2-Dichloroethylene.....	GAC, PTA
o-Dichlorobenzene.....	GAC, PTA
2,4-D.....	GAC
Ethylene dibromide (EDB).....	GAC, PTA
Epichlorohydrin.....	PAP
Ethylbenzene.....	GAC, PTA
Heptachlor.....	GAC
Heptachlor Epoxide.....	GAC
Lindane.....	GAC
Methoxychlor.....	GAC
Monochlorobenzene.....	GAC, PTA
PCBs.....	GAC
Pentachlorophenol.....	GAC
Styrene.....	GAC, PTA
Tetrachloroethylene.....	GAC, PTA
Toluene.....	GAC, PTA
2,4,5-TP (Silvex).....	GAC
Toxaphene.....	GAC
Xylenes (o-, m-, p-).....	GAC, PTA

¹ Packed Tower Aeration (PTA); Granular Activated Carbon (GAC); Polymer Addition Practices (PAP). Source: EPA (9), 1986.

(1) *Granular Activated Carbon.* The use of GAC for drinking water treatment in the United States has been historically limited to addressing taste and odor problems. However, following the widespread detection of SOC's in drinking water supplies, research and many pilot-scale studies evaluating the effectiveness of GAC indicate that GAC can remove a broad spectrum of organic chemicals from water. Although GAC is considered to be the best available broad spectrum removal process, it exhibits a wide range of effectiveness in adsorbing organic compounds.

In general, the strongly adsorbed compounds consist of high molecular weight pesticides and insecticides with high boiling points, low solubilities, and consequently low carbon usage rates. Alachlor, heptachlor epoxide, lindane, and 2,4,5-TP (Silvex) are examples of compounds included in this category. In contrast, weakly adsorbed compounds are comprised of low molecular weight SOC's, which possess low boiling points, moderate solubilities, and therefore high carbon usage rates. Cis- and trans-1,2-dichloroethylene, and xylene, are examples of weakly adsorbed SOC's. Moderately adsorbed SOC's are pesticides, herbicides, and volatile organics which have physical and

chemical properties which lie between those of the strongly and weakly adsorbed compounds. Aldicarb, o-dichlorobenzene, and the VOC, tetrachloroethylene, all have intermediate carbon usage rates characteristic of this classification.

GAC Operating Considerations: The application of granular activated carbon adsorption for removing organic compounds from drinking water supplies involves the following major process design considerations:

- Carbon Usage Rate (CUR)—pounds of carbon per volume of water treated
- Empty Bed Contact Time (EBCT)
- Pretreatment
- Contactor Configuration—downflow versus upflow, pressure versus gravity, single-stage versus multi-stage or parallel versus series
- Method of GAC Regeneration—on-site versus off-site

Carbon Usage Rate: This basic design parameter, expressed as lbs/1,000 gallons, indicates the pounds of carbon required per 1,000 gallons of water treated—in this case to the level of the MCL. It indicates the rate at which carbon will be exhausted or replaced, thus affecting the operating cost of the treatment system. For full-scale GAC installation, the carbon usage rate is often the decisive factor in selecting on-site carbon regeneration or replacing spent carbon with virgin carbon. It also impacts any costs associated with carbon handling, such as storage, dewatering, losses via attrition, and transportation. A detailed discussion of each method is provided in the T&C document.

Empty Bed Contact Time: The empty bed contact time (EBCT), the volume of carbon divided by the hydraulic flow rate, provides an indication of the quantity of carbon which will be on-line at any one time, and thus reflects the capital cost for the system. The EBCT is an important design parameter as it has a significant impact on the carbon usage rate for each SOC. The carbon usage rate reflects the equilibrium capacity of GAC for a particular SOC, at a given influent concentration, if sufficient EBCT is provided.

Pretreatment: GAC systems may require some kind of pretreatment to prevent clogging of the carbon bed and to minimize the organic loading on the carbon. Clogging of the bed may be caused by suspended solids in the influent water or iron and manganese precipitation. Clogging is also caused by biological growth when the carbon bed life is long. However, systems should avoid chlorine disinfection prior to GAC adsorption because chlorine by-products

are adsorbed by the carbon and compete with the organics for adsorption sites. Also, if carbon regeneration is anticipated, adsorption of these chlorine by-products could result in the formation of additional hazardous substances during the regeneration processes. GAC systems are generally added to the end of a conventional treatment process which minimizes clogging.

When the background organic levels in the raw water are high, carbon is used at a faster rate, necessitating more frequent regeneration (or replacement). This increases the operating cost of the system. Pretreatment can reduce the organic loading on the carbon, thereby decreasing the carbon usage rate. The need for pretreatment should, however, be justified on the basis of costs. Examples of processes which may be used for pretreatment include conventional treatment, ozonation, and packed column aeration.

Contactor Configuration: The two basic modes of contactor operation are upflow and downflow. Upflow expanded bed contactors allow suspended solids to pass through the bed without producing a major drop in pressure. This configuration is not generally used in water treatment processes where the level of suspended solids is relatively low. Downflow fixed bed contactors offer the simplest and most common contactor configuration for SOC removal from drinking water. These contactors can be operated either under pressure or by gravity.

The choice of pressure or gravity is generally dependent upon the hydraulic constraints of a given system. Pressure contactors are more suitable to ground water systems because pumping of ground water is required. Gravity contactors are generally more suitable for surface water systems if sufficient head is available. Gravity contactors, when used, will typically be placed downstream of surface water filtration systems.

GAC contactors may be configured to operate in series or parallel. Parallel flow necessitates complete carbon replacement at SOC breakthrough; whereas, operation in series allows for utilization of the carbon in each contactor almost until exhaustion. In series, only the carbon in the first contactor is replaced when SOC breakthrough occurs. Although GAC is used more effectively in series, more contactors are required to treat the same quantity of water for the same EBCT.

GAC Regeneration: Another basic consideration in evaluating GAC system design for SOC removal is the method of

carbon regeneration. The two basic approaches to regenerating the carbon are off-site disposal or regeneration and on-site regeneration. Based on information from GAC manufacturers, on-site regeneration generally does not appear to be economical for systems where the carbon usage rate is less than 1,000 to 2,000 pounds per day.

Treatability Studies: Treatability studies were used to determine the feasibility of GAC to remove SOC from drinking water. These treatability studies are classified as isotherm evaluations, mini column tests, pilot-scale tests, and full-scale tests.

Isotherm evaluations are batch tests which yield the equilibrium or maximum SOC loading on a particular carbon at a given SOC equilibrium concentration. Isotherm data are used to develop model predictions to estimate carbon usage rates and bench-scale test design parameters. Bench scale tests use a mini column to estimate carbon usage rates under flowthrough conditions. Pilot tests are conducted with larger columns than those used in mini column testing and require significantly greater water quantities and longer run times. Full-scale tests evaluate the performance of GAC in actual field installations. In addition to the treatability studies, computer models can predict breakthrough profiles, carbon usage rates, and bed lives using treatability study results.

The Constant Pattern Homogeneous Surface Diffusion Model (CPHSDM) (Hand et al., 1984) was utilized to predict usage rates (Miltner et al., 1987). The model predictions were based on distilled water isotherm data.

However, since the background matrix has been shown to have an effect on the adsorption equilibria and kinetics (Summers, 1988; Crittenden, 1988), predicted carbon usage rates using distilled water isotherm data were compared with usage rates from actual field data using the following information:

- EBCT,
- Influent/effluent concentration, and
- Temperature.

The comparison of field and distilled water indicates that strongly adsorbable compounds are more affected by the presence of background matrix than weakly adsorbable compounds. The ratio of field to distilled water isotherm usage rates was calculated for each available influent/effluent combination. Based on the results, when the distilled water carbon usage rate (CUR) was less than 0.01 lbs/1,000 gallons, it was multiplied by 30 to give a corrected CUR. A multiplier of two was chosen

when the distilled water usage rate was greater than or equal to 0.01 lbs/1,000 gallons.

GAC Design Criteria for Cost Model: The following assumptions were used for design purposes:

- The contactors were sized to provide an empty bed contact time (EBCT) of 7.5 minutes at the design flow, and 15 minutes based on the average flow, except for the three largest flow categories.
- Systems with a design flow of less than 1 MGD used package pressure contactors; systems with a design flow of 1 MGD–11 MGD used pressure contactors; systems with a design flow larger than 11 MGD used concrete gravity contactors.
- Housing requirements assumed contactors were totally enclosed, with additional area for pipe galleries and operating and maintenance service area.
- Electrical energy was 25 Kwh/sq ft of building area per year.
- Maintenance material costs were estimated.
- Costs for land, raw water pumping, chlorination, bulk potable water storage, finished water pumping and waste disposal.

The base capital and O & M costs for carbon contactors are mainly flow dependent. However, the cost of replacing or regenerating the carbon must be evaluated at each site to determine its impact on the overall cost of the contactor.

The following assumptions were used for estimating the carbon replacement/regeneration costs:

- The raw water contained only the individual SOC under consideration.
- Carbon usage rates were developed using model predictions for the specific SOC in distilled water. These carbon usage rates were adjusted as follows: multiplied by 30, if the distilled water carbon usage rate was below 0.01 lbs/1,000 gallons and multiplied by two, if the distilled water carbon usage rate was greater or equal to 0.01 lbs/1,000 gallons.
- If the carbon demand (calculated based on carbon use rate and average flow) was less than 1,000 lb/day, the spent carbon was replaced at breakthrough.
- On-site regeneration utilized multiple-hearth furnaces oversized by 30 percent to account for downtime. For carbon demands greater than 80,000 lb/day, two or more furnaces were used. Carbon handling losses were assumed to be 15 percent.
- Cost of GAC was \$1/lb.

In order to determine the impact of carbon replacement/regeneration on the total cost, a relationship was developed between total production cost and carbon usage rate for each flow category. It shows that as the carbon usage rate drops, the costs drop. At a CUR of about 0.1 lbs/1,000 gallons, the cost curve flattens out. The family of cost curves (one for each size system) are parallel; i.e., higher costs for small systems versus lower costs for large ones. The curves are useful in that for any given system size, the costs for removal of an SOC to the MCL can be determined based on the CUR for that contaminant. SOC's with equivalent CURs will have equal removal costs. Where the cost curve flattens out at a CUR of 0.1, removal cost for that size system will be the same for all SOC's with a CUR below 0.1. Based on these observations, it is possible to provide costs for each size of treatment plant for SOC removal by grouping the SOC's together according to their carbon usage rates, and referring to the appropriate cost curve.

CURs for the moderate to high percent removals (i.e., 80–90% removals) down to the MCL were calculated for each SOC, and used to derive costs from the curves. These costs are presented in a following section in Table 27. The costs are expressed as total production costs (total capital plus operation and maintenance) in cents per 1,000 gallons. This is equivalent to dollars per average household per year (at 3.2 people using a total of 100,000 gallons per year).

The various studies reviewed indicate that all the SOC's proposed in the notice can be removed by GAC to levels at or below the MCLs at reasonable costs.

As discussed previously the cost of this technology is dependent on the carbon usage rate. Certain volatile organics and chlorinated aromatics have relatively poor adsorbabilities, which result in higher carbon usage rates. Because of their volatile nature, these SOC's may be removed more economically by packed tower aeration, which is discussed below.

(2) **Packed Tower Aeration.** The purpose of packed tower aeration (PTA) or packed column air stripping is to optimize conditions under which SOC's will transfer out of solution in water to solution in air. According to Henry's Law, the concentration of gas dissolving in a liquid at constant temperature and pressure is proportional to the partial pressure of the gas above the solution. If the equilibrium concentration of the gas above the liquid decreases, the tendency is for the gas dissolved in the liquid to transfer back to the gaseous phase.

Each SOC has a relative tendency to transfer, or partition, out of solution in water, and that tendency is quantified by a mass transfer coefficient. The mass transfer coefficient is a function of the design of the column and the chemical. The driving force for mass transfer is a change in the equilibrium which develops a concentration gradient. The mass transfer coefficient (MTC) relates the concentration gradient (driving force) with the actual quantity of material transferred from liquid to air. In packed columns, the packing material maximizes the surface area of water exposed to the air moving through the column. The air moving through the tower prevents equilibrium, and maintains the concentration gradient, forcing more gas out of solution into the air.

The greater the Henry's Law Coefficient (HLC), generally the more volatile the compound, and the less air required to remove the compound from the water. As a rule of thumb, SOC's having HLC's less than 1 atmosphere at or above room temperature, probably would not be effectively removed by packed tower aeration. In actual field conditions, the coefficient is approximately 50 percent of the value estimated from vapor pressure and solubility data at 20°C.

The compounds listed in Table 24 are potentially amenable to treatment via packed tower air stripping because of their high Henry's coefficients. The four compounds at the bottom of the list had a vapor pressure of less than 0.2 mm Hg, were not considered strippable, even if the Henry's coefficients were above 1 atmosphere. When the vapor pressure of a compound is very low, the solubility will drive the theoretical HLC up, while the strippability may in fact be low. The last four compounds listed in Table 24 may be strippable, but further testing would be required. Toxaphene and PCBs are mixtures which contain fractions which theoretically would be amenable to aeration.

TABLE 24.—SOCs AMENABLE TO AIR STRIPPING

Compounds	Henry's law coefficient (atm)
tetrachloroethylene	214.0
ethylbenzene	174.4
toluene	161.9
trans-1,2-dichloroethylene	149.5
p-xylene	149.5
m-xylene	137.0
o-xylene	124.5
cis-1,2-dichloroethylene	83.4
monochlorobenzene	74.7
heptachlor	73.1
styrene	62.4

TABLE 24.—SOCs AMENABLE TO AIR STRIPPING—Continued

Compounds	Henry's law coefficient (atm)
1,2-dichloropropane	53.5
o-dichlorobenzene	38.6
ethylene dibromide (EDB)	17.5
dibromochloropropane (DBCP)	7.0
toxaphene	2,010.0
heptachlor epoxide	24.4
PCB (Aroclor 1242)	39.3
chlordane	5.4

The design of air stripping equipment has been developed extensively in the chemical engineering industry for handling concentrated organic solutions. The rate at which a volatile compound is removed from water by aeration depends on the following factors: air-to-water ratio (ideally less than 100); packing material height; available area for mass transfer; water and air temperature; and the physical chemistry of the contaminant. The first three factors can be controlled in the design of the air stripping unit, while the last two (temperature and chemistry) are determined by the raw water quality.

The performance of packed column aeration systems in treating specific SOC's is dependent upon the mass transfer coefficient developed for each SOC. The MTCs can be estimated empirically from SOC physical/chemical properties and the physical characteristics of a particular packing material or they can be developed by actual pilot testing. The empirical approach allows cost estimating to be done on a consistent basis since pilot- and field-scale data often introduce a number of variables which are sometimes inconsistent between studies. The mass transfer coefficients developed by EPA were incorporated into a packed column design model to optimize the design criteria. The design criteria were then used in developing costs to determine the feasibility of PTA in removing individual SOC's from drinking water.

TABLE 25.—PACKED COLUMN DESIGN PARAMETERS

Ground water temperature	12 °C.
Column shell construction	304 stainless steel.
Packing material	1 inch plastic saddles.
Air well	concrete.
Maximum column diameter	16 ft.
Maximum liquid loading	30 gpm ft ² .
Minimum air gradient	50 Nm-2m-1.
Safety factor for Henry's coefficient	1.1.

TABLE 25.—PACKED COLUMN DESIGN PARAMETERS—Continued

Safety factor for K _{1a}	1.1.
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The transfer of VOC's from water to air by packed tower aeration (PTA) technology can pose a problem of exposure via inhalation of volatilized chemicals stripped from the water and transferred to the air.

EPA considered the risks posed by air stripping EDB and DBCP. EDB and DBCP are among the least volatile chemicals being considered using air stripping techniques. However, they are amenable to removal from water by using PTA. They are also probable carcinogens with unit risk factors (per $\mu\text{g}/\text{m}^3$) of 2.1×10^{-4} (EDB) and 6.7×10^{-3} (DBCP). For comparison, the unit (per $\mu\text{g}/\text{l}$) risk factors for oral ingestion is 2.0×10^{-3} (EDB), and 4×10^{-5} (DBCP).

To quantify the risk to downwind populations, EPA used a human exposure model (HEM) to perform a risk assessment. The HEM used data on emissions of EDB and DBCP from seven packed tower aeration facilities. It calculated individual risks and excess cancers of a population (based on 1980 census data) living for seventy years within a 50 km radius of the facility. The model assumes 100 percent transfer of the contaminant in the water to the air. It also assumes the PTA plants are located approximately in the middle of town, and that, for the purpose of air dispersion modeling, the terrain within 50 km is flat.

Because the HEM cannot factor in the risk of more than one chemical emission in the calculation, the risk factor for EDB, which poses a higher risk was used in the model. In order to use the EDB risk factor, the amount of all DBCP emissions was first divided by 3.2, the ratio of the DBCP and EDB risk factors, to account for the differences in carcinogenicity.

Table 26 compares the risks via inhalation of airborne EDB and DBCP emissions from air stripping facilities to the risks of drinking the EDB- and DBCP-contaminated water untreated. The maximum individual lifetime risk estimate is expressed as a probability. Thus, at 3×10^{-7} , the most exposed person has a risk of developing cancer of 3 in 10 million. This number can also be expressed by saying there would be three additional cancers if a population of 10 million were exposed to the maximum predicted concentration of the

contaminant throughout their (70-year) lifetimes.

It was apparent in the cases examined that the risk resulting from exposure to

EDB or DBCP by inhalation is several orders of magnitude lower than that resulting from drinking the contaminated water, and that the

amount of EDB or DBCP added to the air did not significantly increase risks from airborne contaminants.

TABLE 26.—INCREASED RISK DUE TO PTA TREATMENT

Location	Pollutant	Total population exposed	Total annual cancer incidence lifetime risk from exposure to air	Maximum individual lifetime risk from exposure to air	Maximum individual lifetime risk from exposure to water
A.....	DBCP.....	1,480,000	0.0001	1×10^{-7}	2×10^{-4}
B.....	EDB.....	401,000	<0.0001	3×10^{-7}	4×10^{-3}
C.....	EDB.....	437,000	<0.0001	1×10^{-7}	8×10^{-3}
D ₁	DBCP.....	658,000	<0.0001	3×10^{-6}	4×10^{-3}
D ₂	EDB.....	658,000	<0.0001	1×10^{-6}	3×10^{-3}
E.....	EDB.....	1,790,000	0.0001	2×10^{-6}	8×10^{-3}
F.....	DPCP.....	763,000	<0.0001	3×10^{-9}	3×10^{-6}
G.....	EDB.....	763,000	<0.0001	6×10^{-8}	3×10^{-4}

EPA proposes that in addition to GAC, PTA is also BAT for the twelve volatile contaminants listed in Table 27. PTA can remove SOC contaminants to levels at or below the MCLG, but because of the higher costs associated with EDB and DBCP removal, (compared to the removal of the other SOCs) EPA requests comments on whether PTA should be specified as BAT for these contaminants.

Where both carbon and aeration are effective in treating an SOC (i.e., a volatile SOC), both GAC and PTA are designated as BAT. The decision to use either technology depends on, among other things, the SOC, or combination of SOCs, the influent concentration, and the size of the system. For PTA, costs rise with increased percent removals needed to meet the MCL. For GAC, greater removals will only increase cost if the CUR becomes greater than 0.1 lb/

1,000 gallons. A volatile SOC with a low CUR may be cheaper to control using GAC than PTA if it has a strong affinity for carbon (a low CUR) and the influent concentration is high (high percent removal). For volatile SOCs with a low or medium CUR, total production costs using GAC may be lower than PTA for large systems, yet higher than PTA for smaller systems. The choice of GAC or PTA is also dependent on the design factors of each system.

TABLE 27. GAC AND PACKED COLUMN COSTS TO REMOVE SOCS

[Dollars/household/year]¹

Compound	Carbon usage rate	GAC			PTA			Percent removal ²
		Small	Medium	Large	Small	Medium	Large	
Volatile SOCs:								
cis-1,2-Dichloroethylene.....	0.544	\$650	\$52	\$14	\$110	\$8	\$5	65
Dibromochloropropane (DBCP).....	.089	600	39	8	310	51	36	90
o-Dichlorobenzene.....	.049	600	39	8	100	7	5	40
1,2-Dichloropropane.....	.134	600	42	10	180	15	11	95
Ethylbenzene.....	.093	600	39	8	93	6	4	30
Ethylene Dibromide (EDB).....	.068	600	39	8	210	23	16	90
Monochlorobenzene.....	.123	600	42	10	140	11	7	86
Styrene.....	.167	600	42	10	160	13	9	90
Tetrachloroethylene.....	.042	600	39	8	140	10	7	95
Toluene.....	.316	650	52	14	100	7	5	60
trans-1,2-Dichloroethylene.....	.497	650	52	14	130	9	6	86
Xylenes:								
m-Xylene.....	.153	600	42	10	120	8	6	76
o-Xylene.....	.450	650	52	14	120	8	6	76
p-Xylene.....	.496	650	52	14	120	8	6	76
Non-Volatile SOCs:								
Alachlor.....	.061	600	39	8	N/A			
Aldicarb (sulfoxide & sulfone).....	.033	600	39	8	N/A			
Atrazine.....	.134	600	42	10	N/A			
Carbofuran.....	.148	600	42	10	N/A			
Chlordane.....	.064	600	39	8	N/A			
2,4-D.....	.048	600	39	8	N/A			
Heptachlor.....	.140	600	42	10	N/A			
Heptachlor Epoxide.....	.032	600	39	8	N/A			
Lindane.....	.018	600	39	8	N/A			
Methoxychlor.....	.151	600	42	10	N/A			
PCBs.....	.021	600	39	8	N/A			
Pentachlorophenol.....	.024	600	39	8	N/A			
Toxaphene.....	.083	600	39	8	N/A			
2,4,5-TP (Silvex).....	.021	600	39	8	N/A			

¹ Costs include amortized capital and annual operation and maintenance. Reference: (9).

Small systems serve 25–100 persons; medium systems serve 10,000 to 25,000 persons; large systems serve greater than 1,000,000.

Cost in \$/household/year. Production in 1,000 gallons is equal to dollars per household per year (i.e., 8 ct./1,000 gallons=\$8.00/household per year).

² Percent removals from maximum influent levels to at or below the MCL.

EPA is requesting comment on the proposed BAT determination of packed tower aeration for the volatile SOCs; comment is especially requested on the treatability by PTA of EDB and DBCP.

c. *Proposed MCLs for Synthetic Organic Chemicals.* EPA established the proposed MCLs for the synthetic organic chemicals based upon an analysis of several factors. These include: (1) The effectiveness of BAT (either GAC or PTA) to reduce contaminant levels from influent concentrations to the MCLG. Since the two BATs are capable of reducing SOCs to extremely low levels, they are not the limiting factor determining the levels which are as close to the MCLG as feasible. (2) The feasibility (including costs) of applying BAT. EPA considered the availability of the technology and the costs of installation and operation for large systems (serving more than 1,000,000 people). (3) The performance of available analytical methods as

reflected in the PQL for each contaminant. In order to ensure that analytical measurement of contaminants at the MCL are sufficiently precise and accurate, the MCL is set at a level which is no lower than the PQL. (4) After taking into account the above factors, EPA then considered the risks at the MCL level for the EPA group A and B carcinogens to determine whether they would be adequately protective of public health. EPA considers a target risk range of 10^{-4} to 10^{-6} to be safe and protective of public health when calculated by the conservative linear multistage model. The factors EPA used in its analysis are summarized in Tables 28 and 29 for the non-carcinogenic and carcinogenic contaminants respectively.

(1) *Non-carcinogenic Contaminants.* For the non-carcinogenic contaminants listed in Table 28, each of the MCLs is proposed equal to their proposed MCLGs. Section 1412 of the SDWA requires EPA to set MCLs as close to the

MCLGs as is feasible (taking costs into consideration). EPA believes that it is feasible to set the MCLs at the MCLGs because: (1) The PQL for each contaminant is at or below the level established by the MCLG; (2) BAT can remove each contaminant to a level equal to or below the MCLG; and (3) the annual household costs to install BAT in large systems is a maximum of \$14.00 per household per year and generally less than \$10.00. EPA believes that these costs are affordable for large systems. Therefore, EPA proposes the MCLs for the non-carcinogenic contaminants equal to their MCLGs.

For styrene EPA is also proposing an MCLG of 0.1 mg/l based upon a Class C carcinogen classification. Based upon this classification the proposed MCL would also be 0.1 mg/l. EPA requests comments on the styrene classification and the MCL of 0.1 mg/l.

TABLE 28.—MCL ANALYSIS FOR SYNTHETIC ORGANIC CONTAMINANTS (NON-CARCINOGENS)

SOC contaminant	Proposed MCLG (mg/l)	Proposed MCL (mg/l)	PQL (mg/l)	Annual household costs using bat ¹	
				GAC	PTA
Aldicarb.....	0.01	0.01	0.005	\$8.00	
Aldicarb Sulfone.....	0.04	0.04	0.003	8.00	
Aldicarb Sulfoxide.....	0.01	0.01	0.008	8.00	
Atrazine.....	0.003	0.003	0.001	10.00	
Carbofuran.....	0.04	0.04	0.007	10.00	
o-Dichlorobenzene.....	0.6	0.6	0.005	8.00	\$5.00
cis-1,2-Dichloroethylene.....	0.07	0.07	0.005	14.00	5.00
trans-1,2-Dichloroethylene.....	0.1	0.1	0.005	14.00	6.00
2,4-D.....	0.07	0.07	0.005	8.00	
Ethylbenzene.....	0.7	0.7	0.005	8.00	4.00
Lindane.....	0.0002	0.0002	0.0002	8.00	
Methoxychlor.....	0.4	0.4	0.01	10.00	
Monochlorobenzene.....	0.1	0.1	0.005	10.00	7.00
Pentachlorophenol.....	0.2	0.2	0.0001	8.00	
Styrene.....	0.1	0.1	0.005	10.00	9.00
Toluene.....	2.0	2.0	0.005	14.00	5.00
1,3,5-TP (Silvex).....	0.05	0.05	0.002	8.00	
Xylene.....	10.0	10.0	0.005	14.00	6.00

¹ For large surface systems serving > 1,000,000 people, see Table 27.

² For styrene EPA is also proposing an MCL of .005 based on a group B₂ classification. See table 29.

TABLE 29.—MCL ANALYSIS FOR SYNTHETIC ORGANIC CONTAMINANTS (CARCINOGENS) ¹

SOC contaminant	Proposed MCLG ² (mg/l)	Proposed MCL (mg/l)	POL (mg/l)	Annual household costs using BAT ⁴		10 ⁴ Risk Level (mg/l)	Notes
				GAC	PTA		
Alachlor.....	0	0.002	0.002	\$8.00	—	0.04	
Chlordane.....	0	0.002	0.002	8.00	—	0.003	
Dibromochloropropane (DBCP).....	0	0.0002	0.0002	8.00	\$36.00	0.002	
1,2-Dichloropropane.....	0	0.005	0.005	10.00	11.00	0.05	
Ethylene dibromide (EDB).....	0	0.00005	0.00005	8.00	16.00	0.00004	Proposed MCL is 1.25×10^{-4} risk.
Heptachlor.....	0	0.0004	0.0004	10.00	—	0.0008	
Heptachlor epoxide.....	0	0.0002	0.0002	8.00	—	0.0004	
Polychlorinated biphenyls.....	0	0.0005	0.0005	8.00	—	0.0005	

TABLE 29.—MCL ANALYSIS FOR SYNTHETIC ORGANIC CONTAMINANTS (CARCINOGENS) ¹—Continued

SOC contaminant	Proposed MCLG ² (mg/l)	Proposed MCL (mg/l)	PQL (mg/l)	Annual household costs using BAT ⁴		10 ⁻⁴ Risk Level (mg/l)	Notes
				GAC	PTA		
Styrene ⁵	0	0.005	0.005	10.00	9.00	0.1	Proposed MCL is 1.6×10^{-4} risk.
Tetrachloroethylene	0	0.005	0.005	8.00	7.00	0.07	
Toxaphene	0	0.005	0.005	8.00	—	0.003	

¹ Classified by EPA as A or B carcinogens.² EPA policy is that for all A and B carcinogens the MCLG is zero.³ Estimated.⁴ For large surface systems serving > 1,000,000 people.⁵ For styrene EPA is also proposing an MCL of 0.1 mg/l based upon a Group C classification. See table 28.

(2) *Carcinogenic Contaminants.* EPA considered the same factors in determining the proposed MCLs for carcinogenic contaminants as were used for the non-carcinogenic contaminants. However, the proposed MCLGs for carcinogens are zero, a level which by definition is not "feasible" because no analytical method is capable of determining whether a contaminant level is zero. The lowest level which can be reliably measured is the PQL. As described in section IV-A above, EPA calculated PQLs for most SOC's, at ten times the interlaboratory method detection limit. For toxaphene, EDB, and PCBs, EPA set the PQL at five times the interlaboratory method detection limit because the Agency believes that the carcinogenic risks posed by these three contaminants justify slightly less precision in measurement in order to obtain a more stringent level of control. EPA believes that setting the MCL equal to the PQL for each carcinogen contaminant is as close to the MCLG level as feasible.

EPA also calculated the per capita costs to remove the SOC contaminants to or below the MCL using GAC or PTA. These costs range from \$8.00 to \$36.00 per household per year. EPA believes these costs are reasonable and proposes the MCLs at the levels listed in Table 29.

Though EPA is proposing an MCL for pentachlorophenol at 0.2 mg/l based upon EPA's Group D carcinogen ranking, there is considerable evidence which could result in reclassification to Group B2. Based upon a B2 classification, the MCLG would be zero and the MCL would be set at the PQL of 0.0001 mg/l. EPA requests comment on this issue and whether an MCL of 0.0001 mg/l is feasible.

C. Treatment Technique for Acrylamide and Epichlorohydrin; Guidance for Styrene

The Agency evaluated the analytical methods to measure acrylamide, epichlorohydrin, and styrene drinking water concentrations. Currently

analytical methods do not exist which accurately measure, at any level, acrylamide and epichlorohydrin concentrations in drinking water. Thus, for these two contaminants, EPA believes that it is not technologically feasible to ascertain their level in drinking water. The SDWA authorizes EPA to promulgate a treatment technique in lieu of an MCL when analysis is not feasible. Consequently, EPA is proposing a treatment technique for both acrylamide and epichlorohydrin. EPA will continue to conduct research on analytical methods for these contaminants.

Although analytical methods exist to determine styrene in drinking water (described in section V), styrene may not be stable in all drinking waters since it appears to react with chlorine. Therefore, in addition to an MCL, EPA is providing guidance for public water systems using polymers containing styrene. EPA recommends that public water systems follow this guidance to minimize the amount of styrene which may enter the drinking water supply.

Acrylamide, epichlorohydrin, and styrene are introduced as impurities in water treatment chemicals and contact surfaces primarily during water treatment, storage and distribution. These chemicals are present in polymers and copolymers used as coagulant aids and ion exchange resins in water treatment processes and as grout and protective paints in the interior of water tanks and pipes. Polyacrylamide used as flocculant is extremely water soluble and is not expected to be removed during normal treatment. Styrene-divinylbenzene cross-linked copolymer, which is the basic resin material for ion exchange media, may contain residual styrene. The use of acrylamide, epichlorohydrin, and styrene polymers is widespread in drinking water systems and highly desirable because these materials are effective in removing other drinking water contaminants. Because a large segment of the U.S. population may be exposed to these substances,

EPA is proposing a treatment technique for acrylamide and epichlorohydrin to limit the exposure via drinking water.

Because no standardized analytical methods exist to determine acrylamide and epichlorohydrin in drinking water and accurate measurement of styrene may be complicated by styrene's decomposition in chlorinated water, EPA believes that limiting their introduction into drinking water via treatment appears to be the most effective means to reduce exposure to these contaminants.

In determining the proposed treatment techniques for acrylamide, epichlorohydrin and guidance procedures for styrene, EPA is relying upon information and data collected during operation of EPA's Drinking Water Additives Advisory Program. EPA formerly operated this program to provide technical assistance to concerned parties in evaluating drinking water additives products. Due to resource constraints, the Agency has decided to terminate this federal program and is seeking to help establish a program in the private sector. See 53 FR 25586 (July 7, 1988).

1. Acrylamide

EPA proposes to control human exposure to acrylamide by limiting the level that may be used in products used during the treatment of drinking water. EPA is proposing that this level be based on the lowest level of the monomer which can be achieved by current manufacturing technology. EPA determined during operation of the Drinking Water Additives Advisory Program that the level of residual monomer in the polymer product can be reliably measured. This level is measured regularly by polymer manufacturers who certify such levels to EPA, utilities, and State authorities. Under the proposed rule, water systems must certify to the State that the amount of residual monomer in the polymer and

the dosage rate do not exceed specified levels.

Under the Drinking Water Additives Advisory Program, the maximum acceptable level of acrylamide in polyacrylamide was 0.05 percent. The maximum use level of polyacrylamide as a flocculant was 1 ppm. The acrylamide guidance level was adopted from the FDA regulations for polyacrylamide as a secondary direct food additive. This level of acrylamide is considered to be the lowest feasible level that can be achieved using available manufacturing practices. Therefore, the proposed treatment technique requires that PWSs not exceed these levels when acrylamide is used during water treatment.

EPA has estimated the possible exposure that might occur as a result of this treatment technique in order to assure that this approach adequately protects the public against the carcinogenic effects of acrylamide. EPA believes that using polyacrylamide as a flocculating agent is the major source of potential contamination of drinking water by acrylamide. Therefore, EPA has estimated that approximately 90 percent of acrylamide in water results from this use. The remaining 10 percent is estimated to be contributed from other sources, including quantities present in raw water and leaching from polyacrylamide containing adhesives, grouts and paints in contact with drinking water. If one makes the worst case assumption that all of the residual monomer remains in water during flocculation this yields a maximum of 0.0005 mg/l acrylamide in finished water. Taking into account exposure through leaching of polyacrylamide materials, total, human exposure to acrylamide via drinking water will at a maximum be, approximately 0.00055 mg/l.

EPA believes this estimate of the acrylamide in finished water is high because most of the acrylamide will hydrolyze or otherwise react to reduce the monomer level. However, the upperbound theoretical estimated excess cancer risk at the above concentration is 5×10^{-5} for a 70-kg adult who ingests 2 liters of drinking water per day over a 70-year lifetime. This estimate represents the upper 95 percent confidence limit from extrapolations prepared by EPA's Cancer Assessment Group using the linearized multistage model. This risk level falls within the 10^{-4} to 10^{-6} range generally considered by the Agency as acceptable.

Several analytical methods have recently been reported in the literature for the detection of acrylamide in

drinking water in the parts per billion range [see Daughton, C.G. 1988.

"Quantitation of Acrylamide (and Polyacrylamide): Critical Review of Methods for Trace Determination/Formulation Analysis and Future Research Recommendations"; Report prepared for the California Public Health Foundation, Berkeley, CA; and Letterman, Raymond D. and Pero, Richard W. 1988. "Polyelectrolyte Coagulants in Water Treatment as Assessment of Research Needs"; Report prepared for the AWWA Research Foundation, July 1988]. These methods have not been validated by EPA for analysis of drinking water samples and determinations of method detection limits (MDLs) and practical quantitation levels (PQLs).

EPA will study the usefulness of these methods for this regulation. If EPA determines that the method is technologically and economically feasible, the establishment of an MCL for acrylamide may be appropriate. If an MCL is established, the level would depend upon the feasibility of attainment, the detection limit, the PQL, cost and carcinogenic risk. At this time, these factors have not been determined. EPA anticipates that under an MCL, monitoring would be tied to system vulnerability based on the use of polyacrylamide. If EPA determines that it is feasible to establish an MCL for this contaminant, the Agency will solicit comment on a proposed MCL at that time. EPA requests comments on the alternative of establishing an MCL and the potential methodologies to analyze acrylamide in drinking water.

2. Epichlorohydrin

Several epichlorohydrin polymers and copolymers were accepted as flocculating agents by EPA's Drinking Water Additives Advisory Program. Epichlorohydrin polymers and copolymers are also used as contact surfaces for drinking water storage and distribution facilities. The most common residual epichlorohydrin concentration accepted in flocculating agents by EPA's Drinking Water Additives Advisory Program was 0.01 percent at a maximum usage rate of 20 ppm, though some flocculating agents were accepted at lower levels. EPA proposes that the maximum residual epichlorohydrin content concentration in flocculating agents shall not exceed .01 percent at a maximum usage rate of 20 ppm.

To evaluate the possible health effects associated with the .01 percent level, EPA conservatively assumed that all the residual epichlorohydrin monomer remains following flocculation. This results in an epichlorohydrin

concentration in treated water of 0.002 mg/l. If one assumes, as was assumed with regard to acrylamide, that 10 percent of the total epichlorohydrin in drinking water is introduced from indirect sources (leaching from contact surfaces) and the remaining 90 percent is derived from epichlorohydrin-containing flocculating agents, the nominal epichlorohydrin concentration in drinking water would be 0.0022 mg/l. At 0.0022 mg/l the upper bound hypothetical cancer risk calculated using the multistage model (95 percent upper confidence limit) for a 70-kg adult consuming 2 liters of water per day over a 70-year lifetime would be 6×10^{-7} (EPA/CAG).

The regulations for epichlorohydrin in drinking water are based upon limitations on conditions of use of epichlorohydrin-based polymers as part of a treatment technique and polymer quality specifications based upon available manufacturing technology.

Epichlorohydrin-based polymers employed as indirect additives in drinking water must contain no more than 0.01 percent residual epichlorohydrin, assuming a maximum dose of 20 ppm of polymer. The Food and Drug Administration (FDA) has established residual levels of .001 percent for certain food additive applications (21 CFR 173.60). EPA requests comments concerning whether FDA's food additive limitations are relevant to the Agency's proposed standard for epichlorohydrin-based drinking water applications.

Based upon information available to date, EPA believes the 0.01 percent level represents the lowest feasible attainable level since products containing 0.01 percent epichlorohydrin are widely available at no incremental cost to public water systems. If products with less epichlorohydrin are available, systems may use them. However, given the extremely low risks of the 0.01 percent level proposed by EPA, lower residual levels would offer negligible improvements to public health. In addition, such products may be more costly for public water systems.

3. Styrene

EPA proposes an MCL of 0.005 mg/l and 0.1 mg/l for styrene (see Section V of this proposal). However, EPA recognizes that measurement of styrene may be problematic in certain instances. EPA believes that recommending a guidance level for styrene in styrene copolymers used as additives can reduce further styrene exposure via drinking water. EPA's Drinking Water Additives Advisory Program

recommended several styrene copolymers as secondary direct additives (e.g., as ion exchange resins, coagulant aids, etc.). Among styrene copolymers, the lowest styrene residual monomer concentration is 0.09 ppm at a recommended dose of 20 mg/l. Assuming that all the residual styrene associated with the polymer remains in water, this would result in a styrene concentration of 0.000002 mg/l.

Because EPA's Drinking Water Additives Advisory Program data base on the range of residual styrene concentrations in styrene copolymers was somewhat limited, the technology to produce styrene copolymers at 0.09 ppm may not be commonly available for use by PWSs throughout the United States. Consequently, a ten-fold upward adjustment for the minimum residual concentration (i.e., 0.9 ppm), was used to account for this uncertainty. At this residual concentration and an application rate of 20 mg/l the concentration in water under worst case conditions would be 0.00002 mg/l. This concentration level is still significantly lower than the proposed MCLs for styrene.

EPA recommends that styrene copolymers intended for use as ion-exchange resins follow additional use restrictions: (1) The resin bed should be thoroughly cleaned by washing with a minimum of five bed volumes of water prior to distributing water to consumers; (2) the rinse water should be discarded; (3) the temperature of the water passing through the resin bed should be maintained at 25 °C or less; and (4) the flow rate of the water passing through the bed should be more than 2 gallons/cubic ft/minute. These use conditions are adapted from FDA regulations governing the use of polymeric styrene-divinylbenzene ion exchange resins for treatment of bulk quantities of aqueous food and water (21 CFR 173.25).

4. Summary

The approaches described above for controlling acrylamide, epichlorohydrin, and styrene occurrence in drinking water are based on the lowest monomer level which is achievable with current manufacturing technology. These levels were determined by EPA through its experience with the Drinking Water Additive Advisory Program. The resulting monomer levels in polymeric drinking water additives are 0.0005 mg/l for acrylamide and 0.002 mg/l for epichlorohydrin. 0.00002 mg/l is also recommended as the monomer level when styrene is used as an additive. Compliance for acrylamide and epichlorohydrin will be determined by water systems certifying to the State

that the combination of dose and monomer level in the product do not exceed these specified monomer levels. Similarly, a recommended treatment technique for styrene is provided in this notice in addition to the MCL.

Each public water system must annually certify to the State that it achieves the specified levels by not exceeding the specified dosage levels. For acrylamide, the public water system may not exceed 0.05 percent acrylamide in polyacrylamide dosed at 1 ppm. For epichlorohydrin, the public water system may not exceed 0.01 percent residual epichlorohydrin concentration dosed at 20 ppm. For styrene, EPA recommends that public water systems not exceed 1 ppm in styrene copolymers used as direct additives and as resins. Public comments are requested on the treatment control approach described above for acrylamide, epichlorohydrin and the guidance for controlling styrene.

V. Variances and Exemptions

A. Variances

Under section 1415(a)(1)(A) of the SDWA, EPA or a State which has primary enforcement responsibility (i.e., primacy) may grant variances from MCLs to those public water systems that cannot comply with the MCLs because of characteristics of the water sources that are reasonably available. A variance may only be granted to those systems which have installed BAT as identified by EPA pursuant to section 1415. Though EPA is not proposing that BATs meet specified performance criteria, EPA solicits comments on this issue. EPA at the time of final promulgation of this rule may specify minimum performance criteria before a variance is issued.

Furthermore, before EPA or a State may grant a variance, it must find that the variance will not result in an unreasonable risk to health. The levels representing an unreasonable risk to health for each of the contaminants in this proposal will be addressed in a subsequent Federal Register notice. In general, the unreasonable risk to health level would reflect acute and subchronic toxicity for short-term exposures and high carcinogenic risks for long-term exposures (as calculated using the linearized multistage model in accordance with the Agency's risk assessment guidelines).

Under section 1413(a)(4), States that choose to issue variances must do so under conditions, and in a manner, which are no less stringent than EPA allows in section 1415. States may adopt standards which are more stringent than the EPA standards.

EPA specifies BATs for variance purposes. EPA may vary its BAT findings under section 1415 for variances from its BAT findings under section 1412 for MCLs depending on a number of factors, including system size, physical conditions related to engineering feasibility, and MCL compliance costs.

1. Best Available Technology for Inorganic Compounds

Table 30 shows the BATs that EPA is proposing for variance purposes for inorganic compounds. EPA has not proposed coagulation/filtration or lime softening as BAT for small systems (i.e., those systems ≥ 500 connections) for the purpose of granting variances because they are not technologically feasible for small systems, as noted below.

Coagulation/filtration and lime softening of the heavy metals (i.e., barium, cadmium, chromium, mercury and selenium) are more complex than conventional treatment (i.e., treatment for turbidity removal). Their complexity results in the need for increased operating time and expertise to operate coagulation/filtration and lime softening systems. This complexity is a result of: (a) Generally higher pH requirements for precipitation of heavy metals than for turbidity; (b) differences in coagulant selection, generally favoring the iron salts; (c) much higher doses of coagulants or lime to precipitate heavy metals than for conventional turbidity removal or lime softening; and (d) larger sedimentation basins and possible two-stage processes (one for turbidity softening and one for metals precipitation). Consequently, EPA believes coagulation/filtration and lime softening are too complex, as measured by operating time and the level of expertise required, for small systems.

Costs of installing and operating reverse osmosis, activated alumina, and ion exchange are relatively high for small systems compared to large systems. EPA requests comment on whether these technologies should constitute BAT for small systems under section 1415. EPA is continuing to evaluate what costs are reasonable for public water systems. Commenters are encouraged to provide comment on what should constitute BAT for small systems. The Agency is currently developing affordability criteria and will request public comment on those criteria in a separate notice. After public comment the Agency may use them in this rulemaking.

With regard to BAT under section 1415, EPA requests comment on: (1) Whether other technologies should be considered BAT under section 1415 for

the IOCs; (2) whether it is appropriate to exclude coagulation/filtration and lime softening for small systems; and (3) the appropriateness of reverse osmosis

(RO), ion exchange and activated alumina as BAT under section 1415 for small systems. EPA notes that RO offers the benefit of multiple contaminant

removal and desalting, which makes RO technology especially attractive for some drinking water systems, including small systems.

TABLE 30.—BAT FOR IOCs FOR VARIANCES

Inorganic contaminant	Best available technologies							
	Activated alumina	Coagulation/filtration ¹	Corrosion control	Direct & diatomite filtration	Granular activated carbon	Ion exchange	Lime softening ¹	Reverse osmosis
Asbestos.....		X	X	X				
Barium.....						X	X	X
Cadmium.....		X	X			X	X	X
Chromium III.....		X				X	X	X
Chromium VI.....		X				X		X
Mercury.....		X ²			X		X ²	X ²
Nitrate and nitrite.....						X		X
Selenium IV (selenite).....	X	X					X	X
Selenium VI (selenate).....	X						X	X

¹ Not BAT for systems less than 500 service connections.

² BAT only if influent mercury concentrations do not exceed 10 ug/l. Coagulation/Filtration for mercury removal includes PAC addition or post-filtration GAC column where high organic mercury is present in source water.

2. Best Available Technology for Synthetic Organic Chemicals

EPA proposes granular activated carbon as BAT for SOC under section 1415 for all size systems (see Table 23). PTA is proposed as BAT for the volatile SOC and EDB and DBCP. EPA believes these technologies, as discussed in Section IV, are technologically and economically feasible for all size systems.

EPA, however, specifically requests comment on whether PTA should be BAT under section 1415 for DBCP and EDB in light of the fact that air to water ratios of greater than 100 would be required for 90 to 99 percent removal, resulting in increased costs.

3. Use of POU Devices and Bottled Water

Under section 1415(a)(1)(A)(ii) of the Act, when the State grants a variance, it must prescribe an implementation schedule of any additional required control measures. The State may require the use of POU devices, bottled water, or other mitigating measures as "additional control measures" as a condition if an unreasonable risk to health exists. EPA has previously promulgated regulations specifying when POU devices and bottled water may be used. (See 52 FR 25690, 25701-25702, and 25708, July 8, 1987.) This proposed rule would extend those provisions to cover the contaminants in this notice. EPA's explanation for those provisions was explained in the July 8, 1987 rulemaking.

B. Exemptions

Under section 1416(a), a State or EPA may grant an exemption extending

deadlines for compliance with a treatment technique or MCL if it finds that (1) due to compelling factors (which may include economic factors), the PWS is unable to comply with the requirement; (2) the exemption will not result in an unreasonable risk to human health; and (3) the system was in operation on the effective date of the NPDR, or, for a system not in operation on that date, that no reasonable alternative source of drinking water is available to the new system.

If EPA or a State grants an exemption it must at the same time prescribe a compliance schedule (including increments of progress) and it may specify appropriate control measures that the system must meet while the exemption is effective. Under section 1416(2)(A), the schedule must require compliance within one year after issuance of the exemption. However, section 1416(b)(2)(B) states that EPA or the State may extend the final compliance date for a period not to exceed three years, if the public water system is taking all practicable steps to comply and one of the following conditions applies: (1) The system cannot comply without capital improvements which cannot be completed within the period of the exemption; (2) in the case of a system which needs financial assistance for the necessary implementation, the system has entered into an agreement to obtain financial assistance; or (3) the system has entered into an enforceable agreement to become part of a regional public water system. For public water systems which serve less than 500 service connections and which need

financial assistance for the necessary improvements, EPA or the State may renew an exemption for one or more additional two-year periods if the system establishes that it is taking all practicable steps to meet the requirements noted above.

Under section 1416(d), EPA is required to review State-issued exemptions at least every three years and, if the Administrator finds that a State has, in a substantial number of instances, abused its discretion in granting exemptions or failed to prescribe schedules in accordance with the statute, the Administrator, after following established procedures, may revoke or modify those exemptions and schedules. EPA will use these procedures to scrutinize exemptions granted by States and, if appropriate, may revoke or modify exemptions.

As a condition for receiving an exemption, the State may require the use of POU devices or bottled water for the duration of the exemption. The exemption conditions are the same as those referenced in the variance section.

VI. Compliance Monitoring Requirements

A. Background

Compliance monitoring requirements are proposed to determine whether community (CWS) and non-transient, non-community water systems and transient non-community water systems (for nitrate/nitrite only) supply drinking water that meets the MCLs. EPA is proposing these monitoring requirements under section 1445 of the SDWA.

Although section 1412(b) of the SDWA provides that the National Primary Drinking Water Regulations (as described in section 1401) take effect 18 months after their promulgation, under section 1445 there is no such limitation for monitoring, reporting, and recordkeeping regulations. To allow the monitoring requirements to be effective within 30 days of promulgation, EPA proposes to promulgate these regulations under section 1445. Effective 18 months after promulgation, the monitoring requirements will also be deemed to be promulgated under section 1412. This change will allow systems to complete monitoring and analysis by the effective date of the MCLs (effective date of the MCLs are 18 months after promulgation of this regulation). Each contaminant in this proposed rule is classified using the three-tiered approach (presented in the Advanced Notice of Proposed Rulemaking published on October 5, 1983, 48 FR 45502). The tiers are as follows:

Tier I—Those contaminants which occur with sufficient frequency, are of sufficient concern to warrant national regulation (MCLs), and therefore require uniform monitoring and reporting (M/R) requirements.

Tier II—Those contaminants which occur with limited frequency, are of sufficient concern to warrant national regulation (MCLs), and therefore justify flexible monitoring requirements based on vulnerability assessments.

Tier III—Those contaminants which occur with limited frequency and are not of sufficient concern to warrant development of a national regulation (MCL), but for which EPA may provide non-regulatory health guidance to States and water systems.

The main difference between Tier I and II contaminants is the probability and predictability of occurrence, although the health implications of contaminants in the two groups may be similar. The three-tiered approach was developed to provide a framework for developing both MCL and monitoring requirements based on the health significance of the contaminants in drinking water, the occurrence, and the predictability of occurrence or potential occurrence.

EPA proposes to classify all inorganic contaminants in this proposal as Tier II contaminants except nitrate and nitrite, which are classified as Tier I contaminants. This proposed classification is based in part on the recommendations from a Workshop on Revised Drinking Water Regulations for Inorganics and Corrosion By-products held on June 4-6, 1985. The results from this workshop are summarized in the

Methods and Monitoring Document for Inorganic Contaminants.

Nitrate and nitrite are proposed as Tier I contaminants because the presence of nitrates is widespread in drinking water supplies and their presence is associated with acute adverse health effects in infants. In addition, nitrate/nitrite occurrence is expected to continue due to the widespread use of fertilizers.

All the SOC's are proposed as Tier II contaminants. Tier II includes those contaminants whose occurrence may be predictable in drinking water based upon a multiplicity of factors such as geological conditions, use patterns (e.g., pesticides), type of source, historic record, or the nature of the distribution system. Tier II contaminants appear to warrant giving States discretion so that monitoring requirements are tailored to local conditions. Thus, although compliance with the MCL is required in all cases, EPA is providing States the latitude to tailor monitoring requirements for each system provided the minimum Federal standards are met.

EPA has divided the SOC's into two groups to propose monitoring requirements:

Group A—Ten Volatile Synthetic Organic Chemicals (VOCs)

cis-1,2-Dichloroethylene	Toluene.
1,2-Dichloropropane	trans-1,2-Dichloroethylene
o-Dichlorobenzene	Xylenes (total)
Ethylbenzene	Tetrachloroethylene
Monochlorobenzene	Styrene.

Group B—SOCs: Eighteen Pesticides and Polychlorinated Biphenyls (PCBs)

Alachlor	Ethylene dibromide (EDB).
Aldicarb	Heptachlor
Aldicarb sulfone	Heptachlor Epoxide
Aldicarb sulfoxide	Lindane
Atrazine	Methoxychlor
Carbofuran	Polychlorinated biphenyls (PCBs)
Chlordane	Pentachlorophenol
Dibromochloropropane (DBCP)	Toxaphene
2,4-D	2,4,5-TP (Silvex).

EPA has separated the SOC's into two groups for three reasons. First, the sources and mechanisms of contamination of drinking water are different for Groups A and B. VOCs are most likely to occur in areas with considerable industrial activity, while pesticides are most likely to occur in areas with considerable agricultural activity. Second, the available occurrence data indicate that the presence of VOCs is more widespread

throughout the U.S. than the presence of pesticides. Therefore pesticide monitoring can be targeted based on knowledge of pesticide use and cropping patterns. Third, the same analytical methods are used to monitor all the VOCs in Group A, while different techniques are needed to monitor the pesticides and PCBs in Group B.

In developing the proposed compliance monitoring requirements for these contaminants, EPA considered:

(1) The likely source of drinking water contamination, (2) differences between ground and surface water systems, (3) samples which are representative of consumer exposure, (4) sample collection and analysis costs, (5) use of historical monitoring data which identifies vulnerable systems and subsequently specifies monitoring requirements for vulnerable systems, (6) the limited occurrence of some contaminants, and (7) the need for States to tailor monitoring requirements to system-specific conditions.

Monitoring requirements for surface and ground water systems are addressed separately because: (1) The sources and mechanisms of contamination for ground and surface water systems are different, (2) the overall quality of surface waters tends to change more rapidly with time than does the quality of ground waters, (3) seasonal variations tend to affect surface waters more than ground waters, and (4) spatial variations are more important in ground waters than in surface waters since groundwater contamination is often a localized problem confined to one or several wells within a system. Therefore, monitoring frequency is an important factor for surface water systems while sampling location is important for groundwater systems. The proposed monitoring requirements require surface water systems to monitor more frequently than groundwater systems.

EPA desires monitoring requirements which ensure the statutory goal of compliance with the MCLs and efficiently utilize State and utility resources. A major goal is to ensure these monitoring requirements are consistent with monitoring requirements promulgated previously by EPA. The monitoring program proposed by EPA focuses monitoring in individual public water systems to the contaminants that are likely to occur. This approach includes:

- For the volatile SOC's listed in § 141.61(a), allowing States to reduce monitoring frequencies based upon a vulnerability assessment. For the pesticides and PCBs listed in § 141.61(c),

requiring only vulnerable systems to monitor.

- Allowing States to target monitoring to those systems which are vulnerable to a particular contaminant.
- Allowing the use of recent monitoring data in lieu of new data if the system has conducted a monitoring program using reliable analytical methods.
- Encouraging the States to use historical monitoring data meeting specified quality requirements and other available records to make decisions regarding a system's vulnerability.
- Requiring all vulnerable systems to conduct repeat monitoring unless the system demonstrates that its vulnerability status has changed.
- Designating sampling locations and frequencies that permit simultaneous monitoring for all regulated contaminants, whenever possible.
- Requiring that samples be taken during high vulnerability times for those contaminants whose concentration may fluctuate seasonally (e.g., nitrates, pesticides).

B. Rounding of Analytical Results for Compliance Determination

The procedure to be followed in determining compliance with the revised regulations for both the inorganic and organic chemicals is as follows: Data reported to the State or EPA should contain the same number of significant digits as the MCL. In calculating data for compliance purposes, numbers should be rounded off to one significant digit. The last significant digit should be increased by one unit if the digit dropped is 5, 6, 7, 8, or 9. If the digit is 0, 1, 2, 3, or 4, the preceding number does not change. For example, analytical results for mercury of 0.0016 mg/l would be reported as 0.002 mg/l, while results of 0.23 mg/l for pentachlorophenol would be reported as 0.2 mg/l. For nitrate, results of 10.4 mg/l would be rounded to 10 mg/l, while a value of 10.6 mg/l would be rounded to 11 mg/l and would be in violation of the MCL.

C. Inorganic Chemical Monitoring Requirements

1. Introduction

EPA proposes to change the existing monitoring requirements for barium, cadmium, chromium, mercury, nitrate, and selenium and proposes new monitoring requirements for asbestos and nitrite. In addition, EPA proposes to reorganize the current fluoride monitoring requirements in § 141.23(g) and include fluoride in the monitoring requirements applicable to barium, cadmium, etc. Including fluoride in the

requirements applicable to the other inorganics is not a substantive change from existing requirements and serves to simplify the inorganic monitoring requirements.

EPA believes that the inorganic contaminant sampling and analytical costs are reasonable and that sufficient analytical capability currently exists to analyze all inorganic contaminants except asbestos (see the discussion under the Analytical Methods, Section IV-A). To provide enough time for laboratory capabilities to expand, EPA is proposing that water supply systems be allowed to complete the first round of monitoring requirements for asbestos within five years of publication of the final rule.

2. Dates for Completion of Initial Monitoring

The new MCLs being promulgated under section 1412 of the Act (see proposed § 141.62), will not become effective until 18 months after promulgation. Prior to that time the existing MCLs (see § 141.11) will remain in effect.

Effective thirty days after promulgation, the monitoring requirements contained in the final rule will replace existing monitoring provisions contained in 40 CFR 141.23. Proposed § 141.23 notes that the new monitoring requirements for inorganics will apply to both the existing MCLs and the new MCLs being promulgated by EPA "as appropriate." This provision means that the new monitoring requirements must be followed in determining compliance with the existing MCLs until those MCLs are superseded by the new MCLs being promulgated at § 141.62. EPA believes it is appropriate to require systems to follow the new monitoring requirements in determining compliance with existing MCLs for several reasons. First, the new monitoring provisions are not significantly different from the current monitoring protocols being followed by water systems, and changing to the new procedures should therefore not be difficult. Second, since systems will have to complete monitoring for the new MCLs within 18 months in any case, applying the new monitoring provisions for the existing MCLs will eliminate the need for duplicative monitoring to determine compliance with the existing and new MCLs.

Under this proposal community water systems are required to complete the initial round of monitoring for barium, cadmium, chromium, nitrate, nitrite, mercury and selenium and report the results to the State within 18 months of promulgation; non-transient, non-

community water systems must complete the initial round of monitoring and report the results to the State within four years of promulgation. Since virtually all non-transient, non-community water systems are small systems serving less than 3,300 persons, this proposal is consistent with previous EPA proposals to phase in monitoring requirements based on system size. For asbestos, both community and non-transient, non-community systems that are vulnerable to asbestos contamination must complete all monitoring and report the results to the State within five years of promulgation.

EPA requests comments on allowing non-transient, non-community systems four years to complete inorganics monitoring and five years for community and non-transient, non-community water systems to complete the asbestos monitoring. Comment is particularly requested on whether non-transient, non-community water systems should have up to four years to complete the initial sampling for nitrate/nitrite or whether these systems should complete that sampling sooner.

3. Sampling Location

Under the proposed regulation, surface water systems must sample at points in the distribution system which are representative of each source or at each entry point to the distribution system which is located after any treatment and which is representative of each source. The number of samples will be determined by the number of sources or treatment plants. For groundwater systems, sampling must be done at each entry point to the distribution system after treatment. The number of samples a system must take will be determined by the number of entry points. EPA believes this approach will make it easier to pinpoint possible contaminated sources (wells) within a system. In both surface and ground water systems, the proposed sampling locations are such that the same sampling locations may be used for the collection of samples for other source-related contaminants such as the volatile organic chemicals, which simplifies sample collection efforts. The only exception would be for asbestos, where if the system has asbestos/cement (A/C) pipes, sampling must be at a tap served by asbestos cement pipe. Inorganic sampling (except for nitrate/nitrite) may be conducted at any time. Nitrate/nitrite sampling must be conducted at the time when the system is most susceptible to contamination. This generally occurs after rain and after the application of fertilizers when there may be fertilizer runoff. EPA is

proposing nitrate sampling at the time the system is most vulnerable to ensure that monitoring detects contamination when it is most likely to occur.

This proposed rule relates primarily to contaminants that enter drinking water due to contamination of source waters. However, in some cases contamination may occur as a by-product of corrosion in the water delivery system. EPA has proposed monitoring requirements for corrosion by-products (i.e., lead and copper) in another rule. Monitoring for such corrosion by-products generally occurs at the tap in order to ensure that contamination due to corrosion is detected. Two contaminants addressed by this proposal are potential corrosion by-products: cadmium and asbestos.

Cadmium present in some galvanized iron pipes in the distribution system has the potential to leach into the drinking water. Present evidence indicates that the cadmium contribution from galvanized iron pipes is insignificant. EPA therefore believes that cadmium exposure from drinking water primarily results from cadmium in the source water. Therefore, cadmium monitoring requirements in the proposed rule are designed to detect source-related contamination.

Asbestos may also be present at the tap (in addition to in the source) due to corrosion of A/C pipe that is used in some distribution systems. Where the potential exists for asbestos contamination due to corrosion, EPA proposes that sampling be conducted at the tap. The proposed monitoring requirements for asbestos are explained in more detail below.

Public comments are requested on the proposed requirements related to monitoring locations.

4. Monitoring Frequency

Barium, cadmium, chromium, mercury, and selenium: Under this proposal, groundwater systems must monitor every three years and surface water systems must monitor annually. The State may reduce the three year and one year monitoring frequencies to no less than every ten years provided: (1) Surface systems have monitored annually for at least three years and groundwater systems have conducted at least three rounds of monitoring; and (2) all previous analytical results are <50 percent of the MCL. Systems using a new water source are not eligible for reduced monitoring until three rounds of monitoring from the new source are completed. States should base their decision on the reduced monitoring frequency for each system on consideration of historical analytical results, variations in the historical

results, and system changes such as pumping rates or stream flows/characteristics.

EPA is proposing to allow States to reduce the inorganic monitoring frequencies where an adequate baseline of data has been collected because EPA believes that drinking water contamination by most IOCs is highly stable over time. Therefore, those systems that can demonstrate to the State that there is a remote possibility that the system will exceed the MCL can be allowed to monitor on a less frequent basis.

Asbestos: Systems determined by the State to be vulnerable to asbestos contamination after a vulnerability assessment are required to complete one round of monitoring within 5 years of promulgation of the final rule. If the asbestos concentration in the initial round is ≥ 50 percent of the MCL, then groundwater systems must monitor every three years and surface water systems must monitor annually. If the initial results are <50 percent of the MCL, then the State can determine the repeat monitoring frequency. EPA believes it is appropriate to base the repeat monitoring frequency on the analytical results of the initial monitoring because it believes that the possibility of the system exceeding the MCL in the future is remote where the initial results are <50 percent of the MCL. Consequently, repeat monitoring in cases where the result is <50 percent of the MCL would not be required by the rule. Public comment is requested on this approach.

Nitrate and Nitrite—Community and Non-Transient, Non-Community Water Systems: Under the proposed rule, groundwater systems must monitor annually for nitrate and nitrite. Groundwater systems must however, monitor quarterly when the concentration is ≥ 50 percent of the MCL(s) for any one sample. The sampling frequency must remain quarterly until four consecutive quarterly samples are <50 percent of the MCL(s). Surface water systems must monitor quarterly. Surface water systems may sample annually provided all analytic results from four consecutive quarters are <50 percent of the MCL(s). Surface water systems must return to quarterly monitoring if any one sample is ≥ 50 percent of the MCL(s).

Nitrate and Nitrite—Transient, Non-Community Water Systems: EPA is proposing to change the current nitrate monitoring requirements for transient, non-community water systems from monitoring at the discretion of the State to a minimum of every three years for groundwater systems and annually for

surface water systems for both nitrate and nitrite. EPA believes this change for transient, non-community water systems is appropriate due to the widespread presence of these contaminants in drinking water and because they are associated with acute health effects in infants. EPA requests comments on the proposed monitoring frequencies for nitrate and nitrite for transient, non-community water systems and whether the frequencies are adequate to protect customers in such systems.

5. Confirmation Samples

Asbestos, barium, cadmium, chromium, mercury, selenium: If an analytical result indicates that the contaminant level in a system exceeds the MCL, the proposed rule provides that the State may require the system to take a confirmation sample. The confirmation sample must be taken within two weeks after the system is notified of the analytical result and must be taken at the same sampling point as the original sample.

Nitrate and Nitrite: If an analytical result indicates the system will exceed the MCL, then the proposed rule provides that the system must take a confirmation sample within 24 hours of notification of the analytical result from the first sample. Results of both samples must be reported to the State within two weeks of the date the initial sample was taken.

6. Compliance Determination

For systems which are monitoring quarterly, compliance with the MCLs for asbestos, barium, cadmium, chromium, mercury, and selenium is determined by a running annual average (i.e., the last four quarterly samples) at each sampling point. If any one quarterly sample would cause the annual average to be exceeded, the system is out of compliance immediately. For example, if the first quarterly sample were four times the MCL, the system would be out of compliance based on that one sample. This provision serves to provide early notification to consumers of potential health risks. If the average exceeds the MCL at any sampling point, then the entire system is out of compliance and public notification is required. For systems which are monitoring annually or less frequently, a system is out of compliance with the MCLs for asbestos, barium, cadmium, chromium, mercury, and selenium if the analytical result at any sampling point exceeds the MCL. If a confirmation sample is required by the State, then the average of two samples is used. Compliance for nitrate and nitrite is based on one sample or, if the

initial sample exceeds the MCL, on the average of two samples (i.e., initial and confirmation).

7. Asbestos Monitoring

Asbestos occurs in drinking water as a result of asbestos in the raw water supply and/or as a result of corrosion of asbestos-cement pipe in the distribution system. Therefore, systems must first determine whether asbestos may be a source-related problem and/or a distribution system problem before the appropriate monitoring regime is established. Because of the analytical limitations (e.g., analytical costs, limited trained personnel and laboratory capabilities) described above, EPA proposes that only vulnerable systems must monitor for asbestos. States are required to evaluate a system's vulnerability to asbestos contamination within 18 months of rule promulgation. The assessment must consider the following factors: (1) Potential contamination of the water source and (2) the use of asbestos-cement pipes for finished water distribution and the corrosive nature of the water.

In evaluating whether systems may be vulnerable to asbestos contamination due to corrosion of A/C pipe, States should consider systems to be vulnerable that have A/C pipe as well as aggressive water. The aggressivity of water is measured by an "aggressive index;" values greater than 10 indicate nonaggressive or moderately aggressive water while values below 10 indicate highly aggressive water.

If a system is determined to be vulnerable to asbestos contamination in its source water, the proposed rule provides that the system must monitor in accordance with the protocol described above for other source-related inorganics. If the system is vulnerable to asbestos as a corrosion by-product, then the proposed rule requires systems to take a sample at a tap served by asbestos-cement pipe under conditions under which contamination is most likely to occur (i.e., * * * when asbestos cement and corrosive water co-occur). If a system is vulnerable in both respects (in source water and due to corrosion), the proposed rule requires the system to take a sample at a tap served by asbestos-cement pipe under worst-case conditions. EPA believes sampling at the tap is the best approach where both sources of contamination are foreseeable because it will detect asbestos contamination in the source water as well as contamination due to corrosion. If such a sample exceeds the MCL, a system may want to conduct additional monitoring to determine whether the primary cause of

contamination is the source water or due to corrosion of asbestos/cement pipe. EPA solicits comment on whether systems determined by the State to be vulnerable due to contamination of source water as well as corrosion should be required to sample both at the tap and in the distribution system.

EPA also requests comment on the alternative approach of classifying each system as vulnerable unless an assessment by the State determines that the system is not vulnerable. Under this option, all systems would be required to monitor for asbestos unless the State made the affirmative determination that the system was not vulnerable and therefore not required to monitor.

Public comments are requested on all aspects of the proposed monitoring requirements for the inorganic contaminants.

D. Volatile Synthetic Organic Chemical Monitoring Requirements

EPA proposes that the compliance monitoring requirements for the ten Group A SOCs (i.e., the volatile organic compounds) be identical to the final monitoring requirements that have already been established for eight volatile organic chemicals (see 52 FR 25690, July 8, 1987) because the factors affecting the potential for contamination of drinking water are the same and the same analytical methods used for the previously regulated VOCs are used to measure the VOCs covered by this proposal. EPA believes this approach is the most effective way to implement this regulation since the addition of these ten compounds to the list of regulated VOCs will only increase monitoring costs slightly. In addition, one round of monitoring for the ten VOCs included in this proposal was required under the Section 1445 monitoring regulations for unregulated VOCs promulgated July 8, 1987 (See 52 FR 25712). Today's proposed regulation would allow the use of previous monitoring data from the Section 1445 monitoring regulation, in lieu of new data, for the initial round of monitoring. EPA's rationale for proposed monitoring requirements for the ten VOCs was previously discussed in the July 8, 1987 notice (52 FR 25712).

EPA is also proposing a modification to the existing monitoring requirements contained in § 141.24(g)(8)(i)(B). The language in that provision has been interpreted to allow vulnerable systems to take only one sample in the initial year of monitoring if no VOCs are detected in the initial sample.

EPA had originally intended, however, for systems that are vulnerable, to conduct quarterly sampling during the first year of monitoring. The Agency

believes that, if a system is determined to be vulnerable, there is the potential that contamination may exist even if none is detected in the first sample and that quarterly monitoring for at least one year is warranted before reducing monitoring to once per year. EPA is therefore proposing to amend § 141.24(g)(8)(i)(B) in order to clarify that vulnerable systems must conduct quarterly monitoring during the first year regardless of whether VOCs are detected in the first sample. The proposed amendment to the existing § 141.24(g)(8)(i)(B) will affect the monitoring for all VOCs, including those regulated by the rule published July 8, 1987. Given the timetable for monitoring for eight VOCs established in that notice, most systems will have already completed the initial year of monitoring by the time this amendment becomes effective. Those systems that have not completed the initial year of monitoring will be required to monitor in accordance with the amended § 141.24(g)(8)(i)(B).

The proposed monitoring requirements for the determination of compliance with MCLs for the Group A SOCs (i.e., VOCs) are as follows:

- All systems must conduct an initial round of quarterly monitoring at least once over the four-year period following promulgation. Monitoring will be phased in based on the system size as follows:

System size	Monitoring completed within
> 10,000 persons served...	18 months of promulgation.
3,300-10,000 persons served.	30 months of promulgation.
< 3,300 persons served....	54 months of promulgation.

- Ground water systems shall sample at points of entry to the distribution system after any treatment. The minimum number of samples for ground water systems is one sample at each entry point to the distribution system, per quarter for one year. However, if a system is determined not to be vulnerable (see 50 FR 46902, November 13, 1985, and 52 FR 25690, July 8, 1987, for a definition of vulnerability) and the first quarterly sample does not detect VOCs, States have the discretion to reduce the initial sampling round from 4 quarterly samples to that one sampling round. The total number of samples which must be analyzed may be reduced, at State discretion, by compositing. Up to 5 samples may be composited. If VOCs are detected in the composite, systems must take a follow-

up sample at each sampling point which was included in the composite. Readers are referred to 52 FR 25713, July 8, 1987, for a more complete discussion about compositing procedures.

- Each laboratory must determine the minimum concentration at which VOCs are detected (i.e., method detection limit (MDL) as defined in Appendix B to Part 136). This concentration must be no greater than 0.0005 mg/l.

- Surface water systems are required to sample at points in the distribution system or at each entry point to the

distribution system which are located after any treatment and which is representative of each source (called a sampling point). Each system must take one sample at each sampling point per quarter for one year. Composite samples from up to five sources are allowed. If VOCs are detected in the composite sample, follow-up monitoring at each sampling point included in the composite sample is required.

- All systems are required to conduct repeat monitoring every 3 or 5 years (depending upon system size) except for

surface water systems that were not vulnerable and did not detect any VOCs in the first round of sampling. (EPA defines the detection level as 0.0005 mg/l.) Systems which detect VOCs in the initial round of sampling or any subsequent round are required to monitor quarterly. The repeat monitoring frequency is based on prior monitoring results, system vulnerability, and system size.

SCHEDULE OF REPEAT MONITORING REQUIREMENTS

Status	Ground water	Surface water ¹
VOCs not detected ² and not vulnerable.....	Repeat every 5 years.	State discretion.
VOCs not detected and vulnerable: Systems > 500 connections	Repeat every 3 years.	Repeat every 3 years.
Systems < 500 connections.....	Repeat every 5 years.	Repeat every 5 years.
VOCs detected.....	Quarterly.....	Quarterly.

¹ Surface water systems sample during four consecutive quarters.

² Detected = 0.0005 mg/l.

- States have discretion to:
 - Require confirmation samples for positive results.
 - Reduce the repeat monitoring requirements for systems detecting VOCs but at levels consistently less than the MCL. The reduction can be from quarterly sampling to no less than annually after a three-year data baseline is developed.
 - allow the use of previous monitoring data of acceptable quality in lieu of new data to satisfy the initial monitoring requirement if the system is not vulnerable.

- MCL compliance is based upon a running annual average of quarterly samples at each sampling point (i.e., the previous four quarterly samples). If the annual average at any sampling point is above the MCL, the entire system is out of compliance and public notification of the system's customers is required.

- If monitoring is conducted annually or less frequently and if the State reduces the initial quarterly monitoring requirement to one sample, then the compliance determination is based upon that one sample.

E. Pesticide and PCB Monitoring Requirements

In order to propose monitoring requirements for the pesticides and PCBs, EPA evaluated which sampling frequencies and locations provide the best information on whether water delivered to the consumer complies with

the MCL at reasonable sampling and analytical costs.

When developing the July, 1987 VOC monitoring requirements, EPA used occurrence data gathered primarily from EPA and State sponsored surveys. Due to the occurrence of VOCs, the incidence of contamination was correlated with size of the population served by the system (i.e., the likelihood of contamination increases for large systems). However, the occurrence data also supported the decision that all systems should monitor for VOCs since both small and large systems have detected VOCs at relatively high concentrations. That decision was supported by the fact that a single analytical method measures all the VOCs included in the July, 1987 notice at about \$200 per sample. Consequently, EPA promulgated VOC monitoring requirements that would first require larger systems to monitor and subsequently phase in the smaller systems over a period of several years. EPA reasoned that larger systems could best afford the sampling and analytical costs associated with the monitoring and should be required to monitor first.

Determining which systems should monitor for pesticides and PCBs is a more complex problem than for the VOCs because national survey data does not clearly define the extent of the contamination problem. In addition, EPA believes the occurrence potential for most contaminants is limited based on previous survey data. For example,

manufacture of PCBs was discontinued in the U.S. in 1976. However, contamination potential still exists, primarily from capacitors and transformers.

There are many point and non-point sources of pesticide contamination. Point sources may include spills and leaks of pesticides at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling of treatment facilities. The use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land applications contribute to non-point sources pollution of drinking water sources. Pesticide contamination, largely due to sanctioned pesticide use in agricultural areas, most likely affects small systems. In addition, a single analytical method does not exist to analyze all the pesticides. Rather, a minimum of four separate analytical methods must be used to analyze all the pesticides/PCBs included in today's notice. EPA estimates each analytical method costs \$200 per sample analyzed.

In order to ensure that monitoring costs are reasonable, the proposed requirements target compliance monitoring to community and non-transient, non-community water systems which are vulnerable to contamination. Because local pesticide use and the existence of capacitors and transformers are the primary factors in determining

vulnerability, EPA believes that the States are in the best position to assess a system's vulnerability. Appendix B of this notice provides guidance on the factors which may influence the vulnerability of systems to contamination by pesticides/PCBs.

EPA considered three options related to the specific monitoring requirements for pesticides and PCBs. The options were: Option #1: Monitoring requirements should only apply to vulnerable systems; Option #2: EPA would require all systems to conduct one round of monitoring unless the State waives the requirement on a case-by-case basis; and Option #3: Vulnerable ground water systems would take a minimum of a single quarterly sample during the period of highest vulnerability; surface water systems would take four quarterly samples. Under Option 3, if ground water systems detected no contaminants in the initial sample, additional monitoring would not be required. If systems do not detect contamination at the period of highest vulnerability, it may be unlikely that future contamination would be detected. However, EPA asks for comment on the ability of the State to reliably estimate the period of highest vulnerability.

Today's proposal proposes Option #1 (only vulnerable systems are required to monitor for pesticides and PCBs for four quarters). EPA believes this option provides the greatest opportunity for States to target monitoring to those areas where problems are likely to occur. Public comment is requested on the chosen option and the other two options presented above.

The proposed monitoring requirements described below for the pesticides and PCBs are similar to those for VOCs, with a few exceptions as follows: (1) Systems must monitor only for those contaminants to which they are vulnerable; (2) sampling must occur during periods when contamination is most likely to occur (e.g., after first rainfall during application season for pesticides for surface water sources); and (3) the repeat monitoring requirements are not as stringent for small systems (i.e., <500 connections) because the pesticide/PCB monitoring costs are higher. These costs would impose a significant economic burden on small systems.

The proposed monitoring requirements to determine compliance with the MCLs for the Group B organics (i.e., pesticides and PCBs) are:

- Monitoring will be phased in over four years. Vulnerable systems (as determined by the State) must monitor at least quarterly for one year during the initial four years.

- Each State will determine which systems are vulnerable within 18 months after promulgation of the final rule after considering factors that influence vulnerability described in Appendix B. EPA will provide general procedures that the States may use to conduct vulnerability assessments of systems to contamination in a guidance document.

- Systems which detect pesticides/PCBs remain vulnerable to the contaminants detected for a minimum of three years. After three years the State can reclassify the system based upon a new assessment.

- Vulnerable ground water systems must take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment. For the initial round of monitoring, each system must sample quarterly for one year. Repeat sampling frequencies are based on system size and whether pesticides/PCBs are detected (see Table 31).

- The State may reduce the total number of samples by allowing use of composite samples from up to five entry points if the composite reflects the system's normal operating characteristics (i.e., if the composite is representative of each well that is operating). If contamination is detected in a composite sample follow-up sampling is required at each entry point included in the composite.

- Surface water systems must sample at points in the distribution system that are representative of each source or at each entry point to the distribution system which is located after any treatment. For the initial round, each system must monitor quarterly for one year. EPA is proposing that a surface water system may sample more frequently than quarterly. The rationale for allowing more frequent sampling for surface systems is that monitoring results are more variable than for ground water systems. Because monitoring is required at periods of highest vulnerability, the four quarterly samples may not reflect actual exposure. Surface water systems may at their option monitor more frequently as long as all samples taken are used to determine compliance and the sampling design chosen is representative. For example, a representative design is sampling on the same day of the month or at consistent intervals between samples. EPA believes that additional sampling will result in better estimates of the likelihood that the annual average exposure exceeds the MCL, especially when contamination levels vary significantly. Repeat sampling frequencies are based on system size

and whether pesticides/PCBs are detected (see Table 31).

TABLE 31.—FREQUENCY OF REPEAT MONITORING REQUIREMENTS FOR PESTICIDES/PCBs (VULNERABLE SYSTEMS ONLY)

Status	Ground water	Surface water
SOCs are not detected ¹		
Systems > 500 connections.	Repeat every 3 years.	Repeat quarterly every 3 years ¹ .
Systems < 500 connections.	Repeat every 5 years.	Repeat quarterly every 5 years ¹ .
SOCs detected ²		
Systems > 500 connections.	Quarterly.....	Quarterly ³ .
Systems < 500 connections.	Annually.....	Annually ³ .

¹ Must sample for four consecutive quarters.

² Detection—the MDL as defined in Table 14.

³ The number of samples required varies for ground and surface water systems because of the likelihood of short term variability of contaminant concentration in surface water sources. Since greater fluctuations in concentration are more likely to occur in surface water systems (and ground water systems directly influenced by surface water) such systems must monitor more frequently (i.e., quarterly) during the monitoring period.

- Systems must monitor during periods of highest vulnerability (i.e., after rain and application of pesticides, fertilizer).

- States have the discretion to:

- Require confirmation samples for positive results.
- Reduce the repeat monitoring requirements for systems >500 service connections which detect contamination, but at levels <50 percent of the MCL. The reduction from quarterly to annually is allowed after 3 years of quarterly monitoring is completed.
- Reduce the monitoring frequency for vulnerable ground water systems which do not detect pesticides/PCBs from annually to every 3 years after 3 years of annual sampling is completed.
- Allow the use of monitoring data collected after January 1, 1986, in lieu of new data for the initial sample provided the data are of acceptable quality and provide information equivalent to that required in the proposed rule. EPA requests comments on whether it is reasonable to allow systems to use data collected after January 1, 1986 to satisfy the compliance monitoring requirement or whether more recent data should be specified.

• Compliance determination with the MCLs for pesticides and PCBs is as follows:

—For ground water systems which monitor quarterly, compliance is based upon a running annual average of quarterly samples at each sampling location (i.e., the previous four quarterly samples). If the annual average at any sampling location is above the MCL, the system is out of compliance and public notification is required. For surface water systems, which monitor quarterly or more frequently, compliance is based upon a running annual average of all samples taken at each sampling point. If the annual average at any sampling location is above the MCL, the system is out of compliance and public notification is required.

—For systems which monitor annually or less frequently, compliance is based upon one sample. If a confirmation sample is required, the determination of compliance will be based on the average of the two samples.

—If any one quarterly sample causes the annual average to be exceeded, the system is out of compliance immediately. For example, if the sample exceeded the MCL by as many times as there would be samples in that year (i.e., 4 times if quarterly, 12 times if monthly), the system would be out of compliance immediately. This results in early notification of potential health risks to consumers. In addition, if at any point during the sampling year, it is clear the MCL would be exceeded, the system is out of compliance immediately.

Public comments are requested on all aspects of the proposed monitoring requirements for inorganic, VOC, pesticide, and PCB contaminants. EPA specifically requests comments on the following issues:

• Should the monitoring requirements apply only to vulnerable systems or should all systems conduct at least one initial round of monitoring?

• Are the sampling locations, number of samples per system and sampling frequency adequate to measure drinking water quality?

• Are the proposed requirements affordable by public water systems, especially small systems?

• Is the active role of the States to determine each system's vulnerability and the repeat monitoring frequencies a reasonable expectation?

• Should EPA require States to conduct periodic vulnerability assessments (i.e., every 3 or 5 years).

• Whether systems which did not detect pesticides which were cancelled (Chlordane, PCBs, Silvex, Hepachlor, Toxaphene, EDB, DBCP) in the initial monitoring round should be presumed to be reclassified as not vulnerable. Future monitoring would not be required unless the State reclassifies the system as vulnerable to the cancelled pesticides.

• Whether systems are allowed to composite samples without State approval. Under this scenario, systems or laboratories would decide whether to composite rather than the State. However, because States may adopt regulations limiting compositing which are more stringent than Federal requirements, States may limit compositing requirements as part of State regulations. EPA solicits comments on the problems and benefits compositing may provide. For example, certain contaminants such as PCBs and chlordane may adhere to sample bottles and could be missed if sampling techniques fail to obtain a representative sample. Is this a problem and are there techniques to overcome this limitation. Where technically feasible, compositing should reduce monitoring costs and will reduce demand on limited laboratory capacity.

In addition to the proposed monitoring requirements, EPA is considering an alternative monitoring scheme and may adopt it in the final rule. Under this alternative, all community and non-transient, non-community public water systems would be required to monitor for asbestos and the pesticides/PCBs at the locations and the frequencies specified in § 141.23 and § 141.24, as appropriate. The States would not be required to conduct vulnerability assessments to determine which systems would be required to monitor and at what intervals. Vulnerability assessments would be required only when a system wished to decrease the monitoring required by § 141.23 and § 141.24. If a system wished to decrease the monitoring requirements, it would have to submit documentation to the State demonstrating that the reduced monitoring frequencies were appropriate. The State would then make a decision on the system's request based on the data the system submitted and its own vulnerability assessment.

The major difference between this alternative and EPA's proposal is that the alternative shifts the workload burden from the States to the public water systems; that is, the burden is on the system to monitor or to demonstrate to the State that its unique circumstances justify a change in the monitoring requirements. (Under the current proposal, the burden is on the

State to notify the system that it is vulnerable and that it must monitor.)

EPA solicits comments from all parties on this alternative approach. EPA is especially interested on the impact of this alternative on both the public water systems and on State programs.

VII. Laboratory Approval

EPA recognizes that the effectiveness of the proposed regulations is dependent upon the ability of laboratories to reliably analyze contaminants at relatively low levels. The existing drinking water laboratory certification program (LCP) established by EPA requires that only approved laboratories may analyze compliance samples.

The LCP uses external checks of performance to evaluate a laboratory's ability to analyze samples for specific contaminants within specific limits. For this purpose, EPA provides performance evaluation (PE) samples to laboratories on a regular basis; participation in this program is a prerequisite for a laboratory to achieve certification and to remain certified for analyzing compliance samples. Achieving acceptable performance in these studies of known test samples provides some indication that the laboratory is following proper practices.

Unacceptable performance may be indicative of problems that could impact on the reliability of the compliance data.

Unacceptable performance should trigger an investigation to establish the possible cause(s) and to take corrective action. EPA recognizes that even a superior analytical laboratory occasionally produce data which is outside the acceptable limits due to statistical reasons rather than from any actual analytical problems. A provision for rapid follow-up analysis is necessary if a laboratory fails the initial determination to decrease the likelihood of statistical error and to determine if a real problem exists.

EPA's present PE sample program and the approaches used to determine laboratory performance requirements were discussed at 50 FR 46907 (November 13, 1985). Acceptable performance has historically been set by EPA using two different approaches: (1) regressions from performance of pre-selected laboratories, or (2) specified accuracy requirements. EPA requested public comment on these approaches in the November 13, 1985 notice. Most commenters supported the use of a "plus or minus percent of the true value" approach to derive acceptance limits instead of generating performance requirements from study statistics. EPA

agrees with these commenters and will specify accuracy requirements in the revised regulations, whenever possible. This approach involves the specification of a "plus or minus percent of the true value" for setting acceptance limits.

The acceptance limits are derived from an evaluation of existing PE study data. Under some circumstances, when there is insufficient information to determine the expected performance for analytical laboratories because the analytical methods are new and the contaminants have not been included in PE studies, EPA will determine the acceptance limits from individual study statistics based upon 95 percent confidence limits (refer to Section IV for additional information). After sufficient performance data are generated from PE studies, EPA will develop acceptance limits using a "plus or minus percent of the true value approach."

A. Inorganic Chemicals

EPA evaluated performance data gathered from past PE studies to set performance requirements for the inorganics. Performance data are available for all the inorganics with the exception of nitrite and asbestos. The available PE data indicate that both the precision and the accuracy attained for specific inorganic contaminants are contaminant-specific. For example, the percent recoveries are between 93 and 100 percent, while the relative standard deviations are between 4 and 14 percent for the inorganics in this proposal. The "plus or minus percent of the true value" acceptance limits have been derived for each contaminant taking into consideration the expected precision and accuracy and using 95 percent confidence limits to estimate the acceptance limits. For example, the percent recovery for chromium is 100 percent and the relative standard deviation is 7 percent. The acceptance limits using 95 percent confidence limits would be $100\% \pm 2(7\%)$ or 86 to 114% of the "true value." Thus, a $\pm 15\%$ of the "true value" acceptance limit is approximately equal to the 95% confidence limits. The acceptance limits for the other inorganics were estimated using a similar approach. The acceptance limits for nitrite will be the same as for nitrate for the reasons discussed earlier (i.e., the analytical procedures used for nitrite determination and the MDLs are similar to nitrate). The acceptance limits only apply to concentrations \geq PQL. The reader should note that fluoride acceptance limits are also proposed in this proposal since they were not previously established.

The acceptance limits are summarized below:

Contaminant	Acceptance limits
Asbestos.....	Two standard deviations based on study statistics.
Barium.....	± 15 percent at $> .15$ mg/l.
Cadmium.....	± 20 percent at $> .002$ mg/l.
Chromium.....	± 15 percent at $> .01$ mg/l.
Fluoride.....	± 10 percent at 1 to 10 mg/l.
Mercury.....	± 30 percent at $> .0005$ mg/l.
Nitrate.....	± 10 percent at $> .4$ mg/l.
Nitrite.....	± 10 percent at $> .4$ mg/l.
Selenium.....	± 20 percent at $> .01$ mg/l.

Public comments are requested on the acceptance limits for the inorganics.

B. Synthetic Organic Chemicals

1. Volatile Synthetic Organic Chemicals

The proposed performance requirements are the same as the performance requirements established for the 8 VOCs promulgated July 8, 1987 since laboratory performance for the VOCs was similar. Laboratory studies show that approximately 85-90% of the EPA and State laboratories will be within $\pm 40\%$ of the true value for concentrations less than 10 μ g/l and within $\pm 20\%$ of the true value for levels above 10 μ g/l. Therefore, the acceptance limits for the VOCs are $\pm 20\%$ of the true value for concentrations of 10 μ g/l or above and $\pm 40\%$ of the true value for concentrations below 10 μ g/l.

Public comments are requested on the proposed acceptance limits for the VOCs.

2. Pesticides and PCBs

There are no performance evaluation study data for these contaminants at the present time because the analytical methods were only recently developed. Therefore, specified accuracy requirements for laboratory performance cannot be established until more information is available on the actual performance of these methods at different analytical laboratories. In the interim, acceptable performance for laboratory certification for these contaminants will be based on acceptance limits generated from individual study statistics using two standard deviations (i.e., 95 percent confidence limits using study statistics). EPA will collect performance data from future PE studies and then develop accuracy requirements of laboratory performance based on a plus or minus percent of the true value.

Public comments are requested on the use of two standard deviations (i.e., confidence intervals generated from individual study statistics) to determine

acceptance limits for the pesticides and PCBs in this proposed rule.

VIII. Monitoring for Unregulated Contaminants

Requirements are proposed in this notice to monitor for other "unregulated" contaminants. "Unregulated contaminants" are those contaminants for which EPA establishes a monitoring requirement but the contaminant does not have an associated MCLG and MCL or treatment technique. The discussion below describes the statutory authority, provides background information, and describes the proposed requirements.

A. Statutory Authority

The establishment of monitoring regulations is authorized by section 1445(a)(1) of the SDWA which states:

Every person who is a supplier of water, * * * shall establish and maintain such records, make such reports, conduct such monitoring, and provide such information as the Administrator may reasonably require by regulation to assist him in establishing regulations, * * * in evaluating the health risks of unregulated contaminants or in advising the public of such risks.

Further, section 1445(a)(2) of the SDWA require the EPA to promulgate monitoring requirements for unregulated contaminants:

* * * The Administrator shall promulgate regulations requiring every public water system to conduct a monitoring program for unregulated contaminants. The regulations shall require monitoring of drinking water supplied by the system and shall vary the frequency and schedule of monitoring requirements for systems based on the number of persons served by the system, the source of supply, and the contaminants likely to be found. Each system shall be required to monitor at least once every 5 years after the effective date of the Administrator's regulations unless the Administrator requires more frequent monitoring.

EPA fulfilled the statutory mandate contained in section 1445 (c)(2) of the Act by promulgating regulations establishing monitoring requirements for unregulated contaminants on July 8, 1987 (52 FR 2590). EPA is proposing additional monitoring requirements pursuant to section 1445 (a)(1) to assist the Agency in establishing future NPDWRS.

B. Background

In recent years, numerous chemical contaminants have been found in drinking water. Assessment of the quality of drinking water in the U.S. has been accomplished through various monitoring activities including: (1) Compliance monitoring for the primary

and secondary Federal drinking water standards, (2) compliance monitoring for certain State developed drinking water standards, (3) EPA conducted national statistically designed surveys of selected drinking water supplies, (4) State surveys, (5) responses to contamination incidents, and (6) research studies.

These monitoring activities can determine in part the quality of the nation's drinking water. However, most small (and many large) public water systems are unaware of possible contamination of their supplies. Except for certain large systems and those systems in a few States with aggressive monitoring programs, very little ongoing monitoring occurs of potential contaminants not yet regulated in drinking water. Consequently, EPA believes that a systematic and comprehensive monitoring program is needed to determine the quality of water delivered by public water systems. This program would enhance public awareness of drinking water, quality encourage control actions, when appropriate, before standards are implemented, and provide data useful in developing regulations in the future.

EPA recognized the need for a national monitoring program several years ago. In 1984, EPA sponsored a public workshop to discuss the need to monitor unregulated drinking water contaminants. State, utility, public interest group, analytical laboratory, and individual consultant representatives attended the workshop. The workshop split all organic chemicals that were considered to be potential drinking water contaminants into two groups: VOCs and pesticides and other higher molecular weight synthetic organic chemicals. The workshop participants recommended that:

- EPA should initially develop monitoring regulations for unregulated VOCs for all community water systems.
- EPA should next develop monitoring regulations for a limited number of pesticides/SOCs which have sufficient information on occurrence and system vulnerability and for which analytical methods are available. Pesticide/ SOC monitoring should be directed at those Contaminants most likely to occur.
- Before additional pesticide monitoring requirements are

established, EPA should develop additional analytical methods and derive information on system vulnerability.

- States should have flexibility to design monitoring programs which reflect regional priorities and concerns.

The National Drinking Water Advisory Council (NDWAC) also considered this issue in 1984 and recommended that EPA develop monitoring regulations for a limited number of pesticides for which analytical capabilities exist.

Since the 1984 Workshop, EPA promulgated monitoring regulations for 50 unregulated VOCs on July 8, 1987 (52 FR 25709). In order to establish MCLs for pesticides and PCBs, EPA recently developed analytical methods to analyze these contaminants. A residual benefit of the new methods is that they will also detect other chemicals which occur in drinking water.

C. Summary of Unregulated Contaminant Monitoring Requirements

EPA proposes monitoring requirements for approximately 110 "unregulated" organic chemical and 6 inorganic contaminants. These "unregulated" contaminants are divided into two groups. The monitoring requirements for contaminants in the first group only apply to those systems vulnerable to contamination to the listed chemicals. States may require monitoring contaminants in the second group based on local concerns and priorities.

For the first list of 29 organic and inorganic contaminants, the State must conduct a vulnerability assessment for each contaminant. The vulnerability assessment will determine the specific contaminants which community and non-transient, non-community systems must monitor based on factors such as chemical use, hydrogeology, or other factors.

1. Selection of Chemicals

Two factors were considered to select the specific contaminants for "unregulated contaminant" monitoring. First, EPA included those contaminants which section 1412 of the SDWA directs EPA to regulate and which are not covered by this notice (the list of 83 contaminants). Since those contaminants will be regulated by EPA in future rulemaking it is reasonable to

have systems begin monitoring for the contaminants. Analytical methods 505, 507, 508, 515.1, and 531.1 can analyze over one hundred pesticides, including all the organic contaminants included in this proposal. The second factor was used to discriminate those pesticides of higher priority and certain inorganic chemicals, based on previous detection in drinking water.

EPA believes that the monitoring requirements should focus on those chemicals of greatest concern in drinking water. However, the Agency does not want to rule out other chemicals that may pose an adverse health risk and that can be measured with little additional analytical effort. Therefore, the Agency proposes that the State conduct system specific vulnerability assessments for 23 pesticides/SOCs and six inorganic contaminants. Systems must complete monitoring for these priority #1 contaminants within four years of promulgation of the final rule. States may require systems to monitor for the remaining 84 contaminants (priority #2) at its discretion. All pesticides (except two) in the second priority list can be analyzed using EPA Methods 507 and 508.

The two priority groups of contaminants are listed in Tables 32 and 33. EPA requests comments on the specific contaminants and their priority listed in these tables. Readers should note that only vulnerable systems, as determined by the State, need to monitor for priority contaminants listed in Table 32. Monitoring for priority 2 contaminants is at State discretion. These contaminants are listed in Table 33.

Analysis for unregulated contaminants must be conducted in laboratories certified by the State or EPA. EPA will provide interim certification to those laboratories that analyze performance evaluation samples within the acceptance limits established by the EPA using approved analytical methodology. The laboratory can use this interim certification until a full certification program is completed. The acceptance limits for unregulated contaminants in this proposal are based on two standard deviations (i.e., 95 percent confidence limits based on study statistics).

TABLE 32.—UNREGULATED CONTAMINANTS MONITORING FOR PRIORITY #1 CONTAMINANTS—VULNERABLE SYSTEMS¹

Contaminant	Method
SOCs:	
Hexachlorobenzene	505, 508
Dalapon	515.1
Dinoseb	515.1
Picloram	515.1
Oxamyl (vydate)	531.1
Simazine	505, 507
Glyphosate	547
Hexachlorocyclopentadiene	505, 525
PAHs	550, 550.1, 525
Phthalates	506, 525
2,3,7,8-TCDD (Dioxin)	513
Aldrin	505, 508
Dieldrin	505, 508
2,4-DB	515.1
Dicamba	515.1
2,4,5-T	515.1
Carbaryl	531.1
3-Hydroxycarbofuran	531.1
Methomyl	531.1
Butachlor	505, 507
Metolachlor	505, 507
Propachlor	505, 507
Metribuzin	507
IOCs:	
Antimony	Graphite Furnace Atomic Absorption; Inductively Coupled Plasma.
Beryllium	Atomic Absorption; Inductively Coupled Mass Spectrometry Plasma; Spectrophotometric.
Nickel	Atomic Absorption; Inductively Coupled Mass Spectrometry Plasma; Graphite Furnace Atomic Absorption.
Sulfate	Colorimetric.
Thallium	Graphite Furnace Atomic Absorption; Inductively Coupled Mass Spectrometry Plasma.
Cyanide	Spectrophotometric.

¹ Monitoring required for all contaminants for which systems are determined by the State to be vulnerable.

TABLE 33.—UNREGULATED CONTAMINANTS MONITORING FOR PRIORITY #2 CONTAMINANTS—STATE DISCRETION¹

Contaminants Analyzed Using Method 507:

Ametryn
Aspon
Atraton
Azinphos methyl
Bolstar
Bromacil
Butylate
Carboxin
Chlorpropham
Coumophos
Cycloate
Demeton-O
Demeton-S
Diazinon
Dichlofenthion

TABLE 33.—UNREGULATED CONTAMINANTS MONITORING FOR PRIORITY #2 CONTAMINANTS—STATE DISCRETION¹—Continued

Dichlorvos
Diphenamid
Disulfoton
Disulfoton sulfone
Disulfoton sulfoxide
EPN
EPTC
Ethion
Ethoprop
Ethyl parathion
Famphur
Fenamiphos
Fenarimol
Fenitrothion
Fensulfothion
Fenthion
Fluridone
Fonofos
Hexazinone
Malathion
Merphos
Methyl paraoxon
Methyl parathion
Mevinphos
MGK 264
MGK 326
Molinate
Napropamide
Norflurazon
Pebulate
Phorate
Phosmet
Prometon
Prometryn
Pronamide
Propazine
Simetryn
Stirofos
Tebuthiuron
Terbacil
Terbufos
Terbutryn
Triadimenol
Tricyclazole
Vernolate

Contaminants Analyzed Using Method 508:

Chlorobenzilate
Chloropropylate
Chlorothalonil
Chlorpyrifos
DCPA
4,4'-DDD
4,4'-DDE
4,4'-DDT
Dichloran
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin aldehyde
Etridiazole
HCH-alpha
HCH-beta
HCH-delta
HCH-gamma
cis-Permethrin
trans-Permethrin
Trifluralin

Contaminants Analyzed Using Other Methods:

Diquat—Method 549
Endothal—Method 548.

¹ Monitoring for these contaminants is at the discretion of the State.

2. Proposed Monitoring Requirements for Unregulated Contaminants

The monitoring requirements for the unregulated SOCs and inorganics are similar to the monitoring requirements previously described for inorganics and pesticides/PCBs compliance monitoring (See section VI of this proposal). The unregulated contaminant monitoring specifies the same sampling locations and the same minimum number of samples which must be collected and analyzed. Monitoring for the 29 priority #1 contaminants must be completed within four years of promulgation.

EPA believes the proposed monitoring requirement for unregulated contaminants gives the States flexibility to design a program that targets monitoring to those systems which are potentially vulnerable to contamination. Unlike the monitoring requirements for the regulated pesticides/PCBs which specify repeat frequencies, monitoring for unregulated contaminants involves only one round of monitoring. For the unregulated contaminants, though not required, EPA recommends that systems perform confirmatory analyses and that States follow up any detected contamination to determine the precise nature of the problem.

The proposed community and non-transient, non-community monitoring requirements for the unregulated SOCs are as follows:

- For the priority #1 contaminants, states must determine which systems are vulnerable to the contaminants list in Table 32. Monitoring for the contaminants listed in Table 33 is at State discretion.
- For the inorganics, the vulnerability assessment considers potential contamination of the water source. For the SOCs, the assessment considers previous results, the proximity to potential point and non-point sources of contamination, environmental persistence, how well the source is protected, and nitrate levels. EPA notes that systems are only required to monitor for the specific contaminants to which the State determines they are vulnerable to.

• For the priority #1 contaminants, all vulnerable systems must monitor quarterly at each sampling point for one year over the four-year monitoring period.

• Ground water systems must sample at each entry point to the distribution system which is located after treatment. Surface water systems must take a minimum of one sample at points in the

distribution system that are representative of each source or at each entry point to the distribution system and which is representative of each source.

- The State may reduce the total number of samples by the use of composite samples of multiple entry points (up to five entry points per sample) if the composite reflects operating characteristics. If contamination is detected in a composite, follow-up sampling is required from each sample included in the composite.

- The State may require systems to take a confirmation sample.

The proposed monitoring requirements for the IOCs are similar to the monitoring requirements previously described for barium, cadmium, chromium, mercury and selenium. Only one round (one sample) of monitoring is required for the unregulated inorganics. The proposed monitoring requirements are as follows:

- The State shall determine which systems are vulnerable. All vulnerable systems shall monitor once within the four-year monitoring period.

- Systems must sample at entry points to the distribution system for groundwater systems. Surface water systems must sample at entry points to the distribution system or in the distribution system, at points representative of each source or treatment plant. One sample at each sampling point is required.

- The total number of samples may be reduced at the discretion of the State by the use of composite samples. Composite samples from five sources are allowed. If contamination by one or more IOCs is detected, follow-up sampling at each sampling point included in the composite sample is required.

As with the proposed monitoring requirements for the regulated contaminants, EPA is considering an alternative monitoring scheme for the unregulated contaminants. EPA may adopt this alternative in the final rule. Under this alternative, EPA would require all community and non-transient, non-community water systems to conduct one round of monitoring for the unregulated contaminants as specified in § 141.40(m) (organics) and § 141.40(n) (inorganics). No vulnerability assessments would be required. The major difference between the proposal and the alternative is that the alternative monitoring scheme places the burden on the system to perform the monitoring as opposed to placing it on the State to perform an assessment to determine which systems must monitor.

The State would have the discretion to exempt systems from monitoring for one, several, or all of the unregulated contaminants if system submitted documentation to the State showing that it was not vulnerable to contamination by the contaminant(s) for which it did not wish to monitor. The State would then make a determination based on the system's submission and its own assessment of the circumstances.

EPA solicits comments from all parties on the alternative monitoring scheme. EPA is especially interested in the effects of the alternative on both the water systems and on the State programs.

Public comments are requested on the need for monitoring for unregulated contaminants specified in this notice and on specific aspects of the proposed requirements.

IX. State Implementation

The Safe Drinking Water Act provides that States may assume primary implementation and enforcement responsibilities. Fifty-four out of 57 jurisdictions have applied for and received primary enforcement responsibility (primacy) under the Act. To implement the Federal regulations for drinking water contaminants, States must adopt their own regulations which are at least as stringent as the Federal regulations. This section of today's proposal describes the regulations and other procedures/policies the States must adopt to implement today's proposed rule. EPA has previously proposed to revise existing program implementation requirements of 40 CFR Part 142, August 2, 1988 (53 FR 29194).

To implement today's proposed rule, States will be required to adopt the following regulatory requirements: when they are promulgated: § 141.23, Inorganic Chemical Sampling and Analytical Requirements; § 141.24, Organic Chemical Other than Total Trihalomethanes Sampling and Analytical Requirements; § 141.32, General Public Notice Requirements (i.e., mandatory health effects language to be included in public notification of violations); § 141.40, Special Monitoring for Inorganic and Organic Chemicals; § 141.61 (a) and (c), Maximum Contaminant Levels for Organic Contaminants; § 141.62, Maximum Contaminant Levels for Inorganic Chemicals; and § 141.111, Treatment Techniques for Acrylamide and Epichlorohydrin.

In addition to adopting drinking water regulations no less stringent than the federal regulations listed above, EPA is proposing that States adopt certain requirements related to this regulation in

order to have their program revision application approved by EPA. In various respects the proposed NPDWRs provide flexibility to the State with regard to implementation of the monitoring requirements by this rule. Because State determinations regarding vulnerability and monitoring frequency will have a substantial impact with implementation of this regulation, the proposed rule requires States to submit as part of their State program submissions their policies and procedures in these areas. This will serve to inform the regulated community of State requirements and also help EPA in its oversight of State programs. These proposed requirements are discussed below under the section Special Primacy Requirements.

Today, EPA is also proposing changes to State recordkeeping and reporting requirements. EPA's proposed changes are discussed below. EPA requests comments on these proposed requirements.

A. Special State Primacy Requirements

To ensure that the State program includes all the elements necessary for an effective and enforceable program, EPA proposes that, to obtain EPA approval of program revisions, the State's request for approval must contain the following:

(1) The procedures and/or policies the State will use to conduct vulnerability assessments. These procedures/policies must include the factors the State will use in conducting vulnerability assessments and the methods the State will use to inform each system of its vulnerability classification. The procedures must also include procedures and factors to be followed for reclassifying systems with regard to their vulnerability.

(2) The procedures/policies the State will use to allow a system to decrease its monitoring frequency. The policies/procedures must include the factors a State will use in making this determination as well as the method the State will use to inform the system of its new required monitoring frequency.

B. State Recordkeeping Requirements

The current regulations in § 142.14 require States with primary enforcement responsibility to keep records of analytical results to determine compliance, system inventories, sanitary surveys, State approvals, enforcement actions, and the issuance of variances and exemptions. States must keep records for forty years. In this proposal EPA would require that States keep additional records of:

(1) System vulnerability determinations and the basis for the determination.

(2) Any determinations that a system may decrease the repeat monitoring frequency for the inorganic chemicals and pesticides/PCBs. The records must include the basis for the decision and the new monitoring frequency.

(3) Any determinations that a system is required to conduct repeat monitoring for asbestos when the initial analytical result is <50% of the MCL, the basis for the decision, and the repeat monitoring frequency.

(4) Decisions that systems must monitor for the unregulated contaminants.

(5) Letters received from systems serving less than 150 service connections stating that the system is available for sampling for the "unregulated contaminants."

(6) Annual certifications received from systems that when acrylamide and epichlorohydrin are used in drinking water systems that the combination of dose and monomer levels do not exceed the specified levels.

Since the above determination and information will determine the monitoring requirements applicable to a system and will indicate whether a system is complying with the treatment technique requirement in the proposed rule.

EPA believes that the additional State recordkeeping requirements are necessary for effective EPA oversight of State primacy programs. EPA request public comments on these proposed requirements. EPA is also soliciting comments on the existing 40 year State recordkeeping requirement. EPA desires comment on whether this requirement should be modified.

C. State Reporting Requirements

EPA currently requires in § 141.15 that States report to EPA information such as violations, variances and exemption status, enforcement actions, etc. EPA proposes in this notice that in addition to the current reporting requirements, States report to EPA:

(1) A list of all systems on which the State conducted a vulnerability assessment, the results of that assessment, and the basis for the determination.

(2) A list of all systems for which the State reduced the monitoring frequency, the new required monitoring frequency, and the basis for the State's decision.

(3) A list of all systems which the State determines must conduct repeat monitoring for asbestos.

(4) The results of any monitoring for the "unregulated contaminants" listed in § 141.40 (m), (n), and (o).

(5) A list of all systems serving less than 150 service connections which during the previous quarter sent a letter to the State stating its availability for sampling for the "unregulated contaminants."

(6) A list of those systems which certified compliance with the treatment technique requirements for epichlorohydrin and acrylamide.

EPA believes that the State reporting requirements contained in this proposal are necessary to ensure effective oversight of State programs. Public comments on these proposed State reporting requirements are requested. EPA particularly requests comments from States on whether the proposed reporting requirements are reasonable.

X. System Reporting Requirements

The current regulations, 40 CFR 141.31, require public water systems to report monitoring data to States within ten days after the end of the compliance period. No changes are proposed to those requirements.

XI. State Wellhead Protection Programs

Section 1428 of the SDWA contains requirements for the development and implementation of State WHP Programs and authority for Federal grants. Specifically, subsections 1428 (a) and (b) provides that each State, including the District of Columbia and the eligible territories, shall adopt and submit to the Environmental Protection Agency (EPA) a WHP Program that, at a minimum:

1. Specifies the duties of State agencies, local governmental entities and public water supply systems with respect to the development and implementation of Programs.

2. For each wellhead, determines the wellhead protection area (WHPA) as defined in subsection 1428(e) based on all reasonably available hydrogeologic information on ground water flow, recharge and discharge and other information the State deems necessary to adequately determine the WHPA.

3. Identifies within each WHPA all potential anthropogenic sources of contaminants which may have any adverse effect on the health of persons.

4. Describes a Program that contains, as appropriate, technical assistance, financial assistance, implementation of control measures, education, training and demonstration projects to protect the water supply within WHPAs from such contaminants.

5. Includes contingency plans for the location and provision of alternate drinking water supplies for each public

water system in the event of well or wellfield contamination by such contaminants.

6. Includes a requirement that consideration be given to all potential sources of such contaminants within the expected wellhead area of a new water well which serves a public water supply system.

7. Includes a requirement for public participation.

Guidance on the content of State Wellhead Protection Programs and the delineation of State Wellhead Protection areas are available from EPA's Office of Groundwater.

EPA believes it can reduce the regulatory burden of the State and public water systems by linking similar program requirements of the WHP program and the Public Water Supply System program under the Safe Drinking Water Act.

Specifically, the 1986 Amendments to the SDWA establish a new Wellhead Protection Program (WHP) to protect ground waters that supply wells and wellfields contributing drinking water to public water supply systems. The Program offers an innovative approach to ground water protection. Unlike most other environmental programs, the WHP Program focuses on the entire resource requiring protection, rather than on a limited set of sources of contamination. The WHP Program, furthermore, focuses on a very important subset of ground water resources; that is, specific areas that supply wells or wellfields withdrawing drinking water for public systems. This focus on public water systems will protect approximately 90 percent of the total amount of ground water used for drinking in the United States. The management of contamination risks to these wells through the WHP Program, therefore, provides the basis for significant gains in human health protection in a focused, effective manner.

Section 1428 of the 1986 SDWA Amendments addresses areas vulnerable to ground water contamination in defining a "wellhead protection area." The Act defines a "wellhead protection area" as "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield" (section 1428(e)). Thus, such a water well or wellfield may be vulnerable to contamination because the nature of the surface or subsurface area (i.e., the geology of the area) and the activities in the area are reasonably likely to allow contamination to reach

the well or wellfield. A major factor in reducing vulnerability is a program of management controls for existing and potential sources of contamination. A State Wellhead Protection Program will also include: (1) Contingency plans to respond to contamination of ground water and (2) consideration of sources of contamination in siting new wells. The management of existing and potential sources of contamination, contingency plans, and new well siting is expanded to reduce the vulnerability of public water supply wells.

EPA's Office of Drinking Water is currently in the process of developing guidance on how to evaluate and assess contamination potential which may affect drinking water sources. This guidance will discuss how the assessments conducted under State Wellhead Programs and Drinking Water Programs should be linked.

At this time, EPA is inviting public comment on linking certain requirements of the Wellhead Protection Program and the Public Water Supply System Program. Specifically, EPA would like comment on whether the WHP assessment of sources of contamination could be used for the vulnerability assessment of this proposed rule in determining monitoring frequency of public water supply systems, and what the relationship of the two assessments should be.

XII. Public Notice Requirements

Under Section 1414(c)(1) of the Act, each owner or operator of a public water system must give notice to persons served by it of (1) any violation of any MCL, treatment technique requirement, or testing provision prescribed by an NPDWR; (2) failure to comply with any monitoring requirement under section 1445(a) of the Act; (3) existence of a variance or exemption; and (4) failure to comply with the requirements of a schedule prescribed pursuant to a variance or exemption. The 1986 amendments require that within 15 months of enactment, EPA amend its current public notification regulations to provide for different types and frequencies of notice based on the differences between violations which are intermittent or infrequent and violations which are continuous or frequent, taking into account the seriousness of any potential adverse health effects which may be involved.

EPA promulgated regulations to revise the public notification requirements on October 28, 1987 (52 FR 41534). The regulations state that violations of an MCL, treatment technique or variance or exemption schedule ("Tier 1 violations") contain health effects language specified

by EPA which concisely and in non-technical terms conveys to the public the adverse health effects that may occur as a result of the violation. States and water utilities remain free to add additional information to each notice, as deemed appropriate for specific situations. This proposed rule contains specific health effects language for the contaminants which are in today's proposed rulemaking. EPA believes that the mandatory health effects language is the most appropriate way to inform the affected public of the health implications of violating a particular EPA standard. The proposed mandatory health effects language in § 141.32(e) describes in non-technical terms the health effects associated with the proposed contaminants. Public comment is requested on the proposed language.

XIII. Regulatory Impact Analysis

Executive Order 12291 requires EPA and other regulatory agencies to perform a regulatory impact analysis (RIA) for all "major" regulations, which are defined as those regulations which impose an annual cost to the economy of \$100 million or more, or meet other criteria. The Agency has determined that the proposed rule is a major rule for purposes of the Executive Order. This regulation has been reviewed by the Office of Management and Budget as required by the Executive Order and their comments are available in the public docket.

In accordance with the Executive Order, the Agency has conducted an assessment of the benefits and costs of regulatory alternatives (see "Regulatory Impact Analysis of Proposed Inorganic Chemical Regulations," March 31, 1989, and "Regulatory Impact Analysis of Proposed Synthetic Organic Chemical Regulations," April, 1989). The purpose of the assessment was to determine overall impacts of the proposed regulation.

Table 34 shows results from the regulatory impact analyses. Approximately 2,475 community and non-transient, non-community water systems would be expected to exceed the final standards for SOC and IOC without additional treatment. If these systems took actions to comply with the regulations, the annual costs to the nation would be \$88 million.

TABLE 34.—NATIONAL COSTS AND BENEFITS OF PHASE II CONTAMINANTS

	SOCs	IOCs
Central treatment: ¹		
Capital costs (\$M).....	288	73

TABLE 34.—NATIONAL COSTS AND BENEFITS OF PHASE II CONTAMINANTS—Continued

	SOCs	IOCs
Annualized capital (\$M/yr.) ¹	19	5
Operating and maintenance costs (\$M/yr.).....	12	6
Annualized monitoring costs (\$M/yr.) ²	³ 30	³ 2
State implementation cost.....	14	(⁴)
Total annual costs (\$M/yr.).....	75	13
Number of systems impacted.....	2,283	192
Cancer cases avoided.....	72	(⁵)
Population exposed (millions).....	1.7	0.6
Cost per household per year (\$/hh/yr.) for treatment		
Small.....	125	461
Medium.....	40	126
Large.....	20	72
Very large.....	10	0

¹ Includes waste disposal costs.

² Annualized at 3% over 20 years.

³ Includes the one-time costs for compliance with monitoring requirements for unregulated contaminants.

⁴ Included within SOC's.

⁵ Because dose/response functions for the sublethal health effects are not available, cancer cases avoided could not be calculated.

The cost impacts on water systems and consumers affected by most of the synthetic organic and inorganic contaminants are small and vary depending upon the specific chemical contaminant and the size of the public water system. Households served by large to very large water systems (those serving more than 3,300 people) could be subject to water bill increases of between \$20 and \$72 per year, if their systems had SOC or IOC contamination greater than the proposed MCLs. EPA believes that these costs are affordable. Small systems, those serving fewer than 500 people, incur higher per household costs because they do not benefit from engineering economies of scale. Households served by these small systems would have to pay significantly more, should their system have SOC or IOC contamination greater than the proposed MCL. In the case of SOC's, typical annual water bills could increase by as much as \$125, which EPA believes is an affordable level. In the case of IOC's, however, water bills in small supplies could climb an additional \$461 per year in contaminated systems. As discussed in Section V, above, EPA is soliciting comment on whether these costs for small systems are affordable in order to determine BAT for small systems under section 1415 of the Act for the purpose of issuing variances.

A. Regulatory Flexibility Analysis

The Regulatory Flexibility Act requires EPA to consider the effect of regulations on small entities, 5 U.S.C. 602 *et seq.* If there is a significant effect

on a substantial number of small systems, the Agency must prepare a Regulatory Flexibility Analysis which describes significant alternatives which would minimize the impact on small entities. The Administrator has determined that the proposed rule, if promulgated, will not have a significant effect on a substantial number of small entities. Using the Small Business Administration's definition, a small water utility is one that serves fewer than 50,000 people. There are about 78,000 such systems. Of these, fewer than 200 are likely to have contamination levels greater than the inorganics' MCLs and fewer than 2,300 are likely to have contamination in excess of the organic contaminants' MCLs. Therefore, this rule will affect less than one percent of small systems under inorganic MCLs and about 2.9 percent of small systems under the SOC MCLs, which EPA believes does not constitute a substantial number of small systems. It is possible that today's action will have a significant impact on a few small systems if SOCs and IOCs are found at levels higher than the MCLs.

Even though this rule is not subject to the requirements of the Act, the Agency is concerned about potential impacts on small systems and the proposed rule, in many respects, seeks to mitigate that impact. Specifically, the proposed rule allows compositing of samples in order to reduce analytical costs. Also, the Agency has allowed bottled water and point-of-use devices as conditions of receiving a variance or exemption to accommodate the needs of smaller systems with limited resources. The Agency has also given the States the discretion to reduce monitoring frequency in accordance with a system's findings of no SOCs or IOCs and its vulnerability status. Consequently, smaller systems which do not have IOC or SOC contamination in their water supply and are not located in a vulnerable area may have to monitor only infrequently. EPA has also sought to reduce the burden of compliance monitoring by allowing smaller systems more time to complete the initial round of monitoring for VOCs in the proposed rule, and by requiring less frequent monitoring for SOCs for the smallest size systems.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The information collection requirements are not effective until

OMB approves them and a technical amendment to that effect is published in the Federal Register.

XIV. Secondary MCLs (SMCLs)

EPA is proposing SMCLs in this notice based upon taste or odor detection levels for seven organic chemicals. (For five chemicals for which SMCLs are proposed, EPA also is proposing MCLGs/MCLs in this notice). The MCL/MCLGs for an additional SMCL, *p*-dichlorobenzene, was promulgated in the July 8, 1987 Federal Register notice. Seven of these organic chemicals have reported taste or odor detection levels lower than the proposed (or final) MCLs. EPA believes that it is appropriate to set SMCLs for these compounds to protect against aesthetic effects (such as odor) which could be present at levels below the proposed MCLs.

SMCLs are also proposed for two inorganic contaminants, silver and aluminum based on cosmetic and/or aesthetic effects. These contaminants were originally contained in the list of 83 contaminants which were to be regulated by June 19, 1989. However, the Agency substituted other priority contaminants for silver and aluminum (see 53 FR 1892, January 22, 1988).

EPA believes that the nine SMCL contaminants may adversely affect the appearance or odor of drinking water and thereby may cause a substantial number of persons served by the public water system to discontinue their use of its drinking water, or may otherwise affect the public welfare.

For the other chemicals in this notice, EPA would like to develop SMCLs in order to inform the public about expected aesthetic effects (primarily taste and odor) from exposure to a contaminant. However, information on taste or odor detection levels was not available in the literature. EPA asks that any information that may be available on taste or odor detection levels for these chemicals be submitted to the Agency. EPA also plans to carry out studies on taste and odor detection levels for those chemicals for which information is not available in order that SMCLs may be proposed in the future.

EPA determined the SMCLs by evaluating the literature for taste and odor detection levels and, if more than one threshold level was available, using the most conservative (i.e., the lowest) value for that chemical. Literature evaluations included laboratory determinations of taste and odor and thresholds in water dilution calculated from air odor thresholds (a situation which could represent detection of odors in bathing or showering). The

following is a summary of the proposed SMCLs:

A. Aluminum

Proposed SMCL of 0.05 mg/l based upon a level recommended by the American Water Works Association (AWWA) to prevent post-treatment precipitation in the distribution system.

B. *o*-Dichlorobenzene

Proposed SMCL of 0.01 mg/l, based upon the odor detection level as reported by Kolle, W., K.H. Schweer, N. Gusten and L. Stieglitz (1972). Reference: Identifizierung schwer abbaubaren Schadstoffen in Rhein und Rheinuferfiltrat Vom Wasser, 39, 109-119. (In: *Compilation of Odour Threshold Values in Air and Water*, Circa 1978, Editors, van Gemert, L.J., and A.H. Nettenbreijer, National Institute of Water Supply, Voorburg, Netherlands.)

C. *p*-Dichlorobenzene

Proposed SMCL of 0.005 mg/l. The odor detection level as reported by Grunt, F.E.De. (1975) is 0.003 mg/l. Reference: Unpublished data—National Institute for Water Supply, Voorburg, Netherlands. (In: *Compilation of Odour Threshold Values in Air and Water*, Circa 1978, Editors, van Gemert, L.J., and A.H. Nettenbreijer, National Institute of Water Supply, Voorburg, Netherlands.) This level is below the PQL for this compound, which is 0.005 mg/l. Therefore, the Agency is proposing the SMCL for this compound at 0.005 mg/l.

D. Ethylbenzene

Proposed SMCL of 0.03 mg/l, rounded from a threshold of 0.029 mg/l in water dilution calculated by J.E. Amore and E. Hautala (1983). Reference: Odor as an Aid to Chemical Safety: Odor Thresholds Compared With Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution. *Journal of Applied Toxicology*, 3:6:272-290.

E. Pentachlorophenol

Proposed SMCL of 0.03 mg/l, based upon the taste threshold as reported by Dietz, F., and J. Traud. (1978). References: Geruchs-und-Geschmacks-Schwellen-Konzentrationen von Phenolkörpern. Gas-Wasserfach. Wasser-Abwasser. 119:318. In: *Ambient Water Quality Criteria for Pentachlorophenol*, October 1980, EPA 440/580-06.5, Office of Water Regulations and Standards, Washington, D.C.

F. Silver

EPA proposes a SMCL of 0.09 mg/l, based upon argyria as a cosmetic effect. The SMCL was determined based upon several clinical reports in which humans developed argyria as a result of i.v. and oral exposure to silver (Gaul and Staud. (1935). *Clinical Spectroscopy*. Seventy Cases of Generalized Argyrosis Following Organic and Colloidal Silver Medication. *J. Am. Med. Assoc.* 104:1387-1390; Blumberg, H., and T.N. Carey. (1934). *Argyria: Detection of Unsuspected and Obscure Argyria by the Spectrographic Demonstration of High Blood Silver*. *J. Am. Med. Assoc.* 103:1521-1524; and East et al. (1980). *Silver Retention, Total Body Silver and Tissue Silver Concentration in Argyria Associated with Exposure in Anti-Smoking Remedy Containing Silver Acetate*. *Clin. Exp. Dermatol.* 5:305-311).

Though EPA proposes the SMCL for silver to remain at 0.09 mg/l based on a skin cosmetic problem called argyria, a different calculation, assuming an oral absorption rate of 4.4 percent and assuming a total accumulation of 1 gram by i.v. would result in a SMCL of 50, 100 or 250 µg/l depending on the selection of an uncertainty factor of 10, 5 or 2. EPA would like the public to comment on these alternatives.

G. Styrene

Proposed SMCL of 0.01 mg/l, rounded from a threshold in water dilution of 0.011 mg/l, calculated by J.E. Amoore and E. Hautala (1983). Reference: *Odor as an Aid to Chemical Safety: Odor Thresholds Compared With Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution*. *Journal of Applied Toxicology*, 3:6:272-290.

H. Toluene

Proposed SMCL of 0.04 mg/l, rounded from a threshold in water dilution of 0.042 mg/l, calculated by J.E. Amoore and E. Hautala (1983). Reference: *Odor as an Aid to Chemical Safety: Odor Thresholds Compared With Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution*. *Journal of Applied Toxicology*, 3:6:272-290.

I. Xylene

Proposed SMCL of 0.02 mg/l, rounded from a threshold in water dilution of 0.017 mg/l, calculated by J.E. Amoore and E. Hautala (1983). Reference: *Odor as an Aid to Chemical Safety: Odor Thresholds Compared With Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water*

Dilution. *Journal of Applied Toxicology*, 3:6:272-290.

XV. Proposal To Delete MCL for Silver

Currently the MCL for silver is 0.05 mg/l (See 40 CFR 141.11(b)). This MCL was established in 1975, as part of the National Interim Primary Drinking Water Regulations. EPA examined the available data on silver and did not propose an RMCL for this compound on November 13, 1985 due to the fact that the only adverse effect from exposure to silver is argyria (a discoloration of the skin). EPA considers argyria a cosmetic effect since it does not impair the functioning of the body or present other physiological problems.

The SDWA Amendments of 1986 require EPA to regulate 83 contaminants in drinking water by 1989. The SDWA allows EPA to substitute up to seven contaminants if regulation of the substitutes is more likely to be protective of public health. EPA has substituted silver from the list of 83 contaminants for regulation (53 FR 1892). Since the effects associated with ingestion of silver are not considered adverse and silver is seldom found at significant levels in water supplies, EPA substituted silver out of the list of 83 contaminants.

EPA is proposing to delete the current MCL for silver, since the effects of ingesting the contaminant are solely cosmetic and not adverse within the meaning of the SDWA. As noted above, EPA is proposing an SMCL for silver based on cosmetic effects. EPA requests public comment on the removal of the silver MCL.

XVI. Reference and Public Docket

All supporting materials pertinent to the development of this proposal are included in the Public Docket located at EPA headquarters, Washington, DC. The Public Docket is available for viewing by appointment by calling the telephone number at the beginning of this notice. All public comments received on the 1985 proposal are included in the Docket.

The following references are included in the Public Docket together with other correspondence and information. Additional references are cited throughout the preamble of this proposed rule.

(1) Millette, J.R., P.J. Clark and M.F. Pansing 1979. *Exposure to Asbestos from Drinking Water in the United States*. Cincinnati, OH: Health Effects Research Lab, U.S. EPA. EPA-600/1-79-028.

(2) For each inorganic and organic chemical for which an MCLG is proposed, a health effects criteria

document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Draft Health Effects Criteria Document for Cadmium, September, 1987.

(3) U.S. EPA, EMSL-Cincinnati, Methods Manuals for Organics in Drinking Water, December, 1988.

(4) U.S. EPA, Office of Drinking Water, Office of Program Development and Evaluation, Regulatory Impact Analysis of Proposed Inorganic Chemical Regulations, March, 1989.

(5) U.S. EPA, Office of Drinking Water, Office of Program Development and Evaluation, Regulatory Impact Analysis of Proposed Organic Chemical Regulations, April, 1989.

(6) U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Technologies and Costs for the Treatment and Disposal of Waste By-products from Water Treatments for the Removal of Inorganic and Radioactive Contaminants. Revised draft. September, 1986.

(7) U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Estimated Low Range Costs for the Removal of Inorganics, Radionuclides and Corrosion-Related Contaminants from Potable Water Supplies. Draft. November, 1986.

(8) For each inorganic chemical for which an MCLG is proposed, a Technologies and Costs Document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Technologies and Costs for the Removal of Selenium from Potable Water Supplies. Final draft. November 18, 1985.

(9) U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Technologies and Costs for the Removal of Synthetic Organic Chemicals from Potable Water Supplies. Draft. March, 1989.

(10) For each inorganic chemical for which an MCLG is proposed, a cost supplement document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Cost Supplement to Technologies and Costs for the Removal of Selenium from Potable Water Supplies. Draft. February 13, 1987.

XVII. Request for Public Comment

EPA requests public analysis, comments and information on all aspects of this proposal. In addition to

the questions noted earlier, we are also soliciting comment for the following:

- Do the MCLGs which have been changed since the November 1985 notice represent a level such that "no known or anticipated adverse effect would result with an adequate margin of safety?"

- Do the MCLs represent a level as close to the MCLGs as feasible?

- Is the methodology for determining the MCLs appropriate?

- Are the levels set for the MCLs feasible?

- Are the costs of meeting the MCLs reasonable?

- Should the Agency consider other technologies as BAT in addition to the proposed BATs?

- Is the approach used to determine the treatment technique for acrylamide and epichlorohydrin reasonable?

- Are the technologies proposed as BAT (Section 1415 variances) appropriate?

- Are the proposed performance requirements reasonable for the purposes of determining laboratory approval?

- Does the proposed mandatory health effects information for the public notification requirements represent a clear statement of the potential health effects of the chemicals?

- Do the proposed compliance monitoring requirements serve the purpose of ensuring that high quality water is available?

- Is the proposal for monitoring for unregulated contaminants reasonable?

- Do the proposed SMCLs protect against aesthetic effects? Is there additional taste and odor data that could be used to set SMCLs for other chemicals in this notice?

- Are there alternative monitoring requirements which would still ensure high quality water but which would be less burdensome for water systems and States?

Appendix A. 83 Contaminants required to be regulated under the SDWA of 1986

Volatile Organic Chemicals

Trichloroethylene	Benzene
Tetrachloroethylene	Chlorobenzene
Carbon tetrachloride	Dichlorobenzene
1,1,1-Trichloroethane	Trichlorobenzene
1,2-Dichloroethane	1,1-Dichloroethylene
Vinyl chloride	trans-1,2-Dichloroethylene
Methylene chloride	cis-1,2-Dichloroethylene

Microbiology and Turbidity

Total coliforms	Viruses
Turbidity	Standard plate count
<i>Giardia lamblia</i>	<i>Legionella</i>

Inorganics

Barium	Molybdenum
Cadmium	Asbestos
Chromium	Sulfate
Lead	Copper
Mercury	Vanadium
Nitrate	Sodium
Selenium	Nickel
Silver	Zinc
Fluoride	Thallium
Aluminum	Beryllium
Antimony	Cyanide

Organics

Endrin	1,1,2-Trichloroethane
Lindane	Vydate
Methoxychlor	Simazine
Toxaphene	PAHs
2,4-D	PCBs
2,4,5-TP	Atrazine
Aldicarb	Phthalates
Chlordane	Acrylamide
Dalapon	Dibromochloropropane (DBCP)
Diquat	1,2-Dichloropropane
Endothal	Pentachlorophenol
Glyphosate	Picloram
Carbofuran	Dinoseb
Alachlor	Ethylene dibromide (EDB)
Epichlorohydrin	Dibromomethane
Toluene	Xylene
Adipates	Hexachlorocyclopentadiene

2,3,7,8-TCDD (Dioxin)

Radionuclides

Radium 226 and 228	Gross alpha particle activity
Beta particle and photon radioactivity	Radon
Uranium	

Appendix B.—Guidance to Determine Vulnerability of Public Water Systems to Contamination by Pesticides

EPA has reviewed existing information and scientific knowledge about the extent of pesticide contamination, its causes, and its potential health impacts via drinking water consumption. Recent monitoring efforts by some States indicate that the number of pesticides found in ground water is significant enough to cause concern. However most pesticides are generally found at low levels. Most of the available monitoring data is the result of studies conducted in "hot-spot" areas or in wells not used for drinking water consumption. Therefore, the available occurrence information is inadequate to make national projections of consumer exposure to pesticides via drinking water. Currently EPA is surveying public and private wells via a pesticide survey and may be able to use this data to determine national occurrence at a later date.

There are five general criteria that can be used to target those systems which appear to have the greatest vulnerability to pesticide contamination. These criteria can aid the States in the

development and implementation of monitoring programs that would focus monitoring efforts on those systems most vulnerable to contamination by pesticides. These criteria are:

- (1) Available monitoring data on pesticides or other synthetic organic compounds,

- (2) The nearby presence of potential sources of contamination,

- (3) Environmental persistence of the pesticide and mobility of the contaminant,

- (4) The hydrogeological conditions in the area, and

- (5) The finding of elevated nitrate levels in the water supply.

The best indicator that a system is vulnerable to pesticide contamination is prior, reliable occurrence data. The second criterion, nearby use, storage or disposal of pesticides, is an obvious indication of potential contamination, provided the pesticide can infiltrate the water supply. This phenomenon encompasses the third and fourth criteria, which depend on the environmental persistence of the contaminant and the vulnerability to infiltration of the water source. The latter is a complex function of the local climate, geology, and hydrology of the water source.

The EPA has postulated the fifth criterion, elevated nitrate levels, as an indicator of pesticide infiltration. Since nitrates in water are an indication that fertilizer (man made or animal droppings) has leached into the water source, it also indicates that environmentally stable, water transported pesticides could contaminate the same source. It appears that there is a positive correlation between high nitrate levels and the presence of other contaminants. Unfortunately, like many simple indicators, it only flags contaminated supplies. The absence of higher than normal nitrate levels does not seem to indicate that a supply is invulnerable or uncontaminated. However, EPA encourages authorities to consider this as a possible, facile way to select hot spots for more thorough pesticide screening.

The first four criteria are discussed in more detail below.

1. Previous Findings

The identification of contamination by pesticides or other synthetic organic compounds during previous monitoring efforts suggests that the recharge area is vulnerable. This occurs in locations where the recharge areas are close to the land surface and thus may be affected by land management practices

such as pesticide application. Water supplies are contaminated either through a transport of the chemicals through the soil to the ground water, or in the case of surface waters, through surface run-off. Positive results are always helpful in identifying areas conducive to chemical residue transport.

2. Proximity to Sources of Contamination

Pesticides may contaminate a vulnerable water source during their manufacture, distribution, storage, disposal, or use. They may be used on the land or in industrial settings. The sources of contamination may be grouped into two general categories based on the characteristics of the contamination:

a. *Point sources*—include spills and leaks of pesticides at manufacturing, distribution or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities where bulk pesticides are disposed. There are a number of Federal and state laws that are aimed at the prevention and reporting of spills and leaks from these facilities. When an accident does occur, it is relatively localized and can be at least partially controlled. Reports of these incidents can aid in assessing the vulnerability of a supply.

b. *Non-point sources*—include use of pesticides to control insect and weed

pests on agricultural areas, forest lands, home and gardens, and other land application uses. The pesticides applied to the land may be carried by runoff waters into surface water or may enter ground water by infiltration through the ground.

For surface water systems, the proximity of the water sources to manufacturers and formulators increases the probability of contamination because of potential discharges into the surface water. The potential for contamination of the water source also increases with the proximity to agricultural areas because of runoff of pesticides into surface water. Thus, a sanitary survey and an examination of upstream waste water discharges and agricultural activities can indicate the nature and extent of pollution activities that affect the vulnerability of a surface water system. Some watersheds are protected by strict access and land use laws. Surface water systems could be ranked according to the extent of watershed protection afforded by these land use restrictions or the remoteness of the source to pesticide manufacturing or use activities.

Table B-1 summarizes potential sources of contamination of ground water sources. States should determine the presence of manufacturing, commercial, or waste disposal facilities, or other potential point sources near the recharge areas. The presence of

contamination from agricultural use or other land uses is more difficult to assess because such usage is often spread over a wide area at very low concentrations initially that may build up over time with continued pesticide use.

States may establish a hierarchy that would characterize regions according to whether they have high, medium, low or uncommon pesticide usage for land application uses. Specific information on use patterns may be obtained from the agricultural commissioner or other local authorities. Also, regional pesticide sales data and county level crop data are available. Table B-2 summarizes the major current applications of selected pesticides. These tools can be used by States to set monitoring priorities for water systems.

The use of 2,4,5-TP (Silvex) was cancelled in 1984. In addition, toxaphene was apparently used only in cotton growing areas since 1984 when its use was cancelled for most other crops. More recently, the use of chlordane and heptachlor was cancelled in 1988. The use of EDB and DBCP has also been severely restricted. Water supplies that do not detect the presence of these contaminants during initial monitoring should not be required to conduct repeat monitoring. States may want to reclassify the vulnerability of the system based upon the initial monitoring results.

TABLE B-1.—POTENTIAL SOURCES OF PESTICIDE CONTAMINATION OF GROUND WATER

	Manufacturers/ Formulators	Dealer	Industrial user	Land application
Spills and Leaks				
Storage Areas.....	X	X	X	X
Storage Tanks/Pipelines.....	X	X	X	
Loading/Unloading.....	X	X	X	X
Transport Accidents.....	X	X	X	X
Disposal				
Process Waste.....	X		X	
Off-specification Material.....	X			
Cancelled Products.....	X	X	X	X
Containers.....	X	X	X	X
Rinsate.....				X
Land Application				
Leaching ¹				X
Backflow to irrigation well.....				X
Run-in to wells, sinkholes.....				X
Mixing/loading areas.....				X

¹ Leaching potential affected by chemical-physical properties of pesticide, hydrogeologic setting, and application and cultivation practices. Reference: Pesticides in Ground Water. Background Document U.S. EPA, Office of Ground Water Protection, May 1986.

TABLE B-2.—CURRENT APPLICATIONS OF SELECTED PESTICIDES

Pesticide	Applications ¹
Alachlor	Corn; soybeans; peanuts.
Aldicarb	White/sweet potatoes; cotton; peanuts; pecans (S.E.); citrus; sugar beets; ornamentals; dry beans; sorghum; soybeans; sugarcane (La.).
Carbofuran	Sweet/field corn; sorghum; alfalfa; peanuts; soybeans; rice; grapes; cotton; sugarcane; tobacco; potatoes; grapes; small grains; cucurbits.
Chlordane	Cancelled, 1988.
2,4-D	Grasses; wheat; barley; oats; sorghum; corn; sugarcane.
DBCP	Pineapples (Hawaii only).
1,2-Dichloropropane	Soil fumigant.
EDB	Fumigation of exported fruit.
Heptachlor	Cancelled, 1988.
Lindane	Seed and soil treatment; lumber dips; fruit and nut tree foliage application; vegetables; human scalp (lice); ornamentals; tobacco transplants.
Methoxychlor	Dairy and beef cattle; home gardens; fruit and shade trees; vegetables.
Pentachlorophenol	Wood preservative.
2,4,5-TP (Silvex)	Cancelled, 1984.
Toxaphene	Cotton; cancelled for other uses, 1984.

¹ Berg, G.L., ed., Farm Chemicals Handbook, 1986.

In summary, the following information should be considered in the determination of proximity of the water system to potential sources of contamination:

- a. Nearby manufacturing, distribution or storage facilities;
- b. Nearby hazardous and municipal waste landfills or other waste handling or treatment facilities;
- c. Nearby land application uses, especially in crop growing areas; and
- d. Reports of spills or leaking storage areas.

3. Environmental Persistence

In general, the ability of a pesticide to reach groundwater increases with its environmental persistence. Many organochlorine pesticides have been banned because of their long persistence in the environment. The disappearance of a pesticide from soil can be the result of physical, chemical and biological processes. These processes include volatilization, hydrolysis, photolysis and microbial degradation. Degradation of pesticides can be expressed as field dissipation half-lives or as persistence in soil (i.e., approximate time for 90% disappearance from soil). The decomposition processes are in turn a function of the climate (humidity, temperature, rainfall) and the soil type.

The combination of pesticide degradation rates and the hydrogeological characteristics of the area determine whether the pesticide has the opportunity to contaminate the water source.

4. Vulnerable Hydrogeology

Certain hydrogeological characteristics influence the likelihood that a pesticide will infiltrate through the soil and contaminate ground water sources. Hydrogeological factors such as type of soil, depth to water, and permeability of the aquifer formation can determine the vulnerability of a ground water source to pesticide contamination. There are various approaches that have been evaluated for modeling ground water vulnerability from the knowledge of hydrogeological parameters. One of these approaches, known by the acronym DRASTIC, combines information on seven different hydrogeological parameters to produce a score which is an indicator of relative ground water contamination potential for a county or subcounty region.

DRASTIC has been used by EPA to classify all the counties of the United States into three categories of ground water vulnerability (high, medium or low) as part of the design of National Pesticide Survey. States may use DRASTIC or other approaches in combination with pesticide use data to determine those areas particularly vulnerable to pesticide contamination. Specific hydrogeologic considerations of DRASTIC are:

a. *Depth to water*—it determines the thickness of the material through which a contaminant must travel to reach the aquifer (shallow ground water depths are more vulnerable than deeper ground water depths).

b. *Recharge*—amount of water per unit area of land that reaches the water table (the greater the recharge, the easier it is for contamination to occur).

c. *Aquifer media*—geological materials that exert control over the route and path length that a contaminant must follow (the larger the grain size or porosity and the more fractures within the aquifer, the higher permeability, and the greater the contamination potential).

d. *Soil type*—it affects the amount of recharge that can infiltrate into ground water and the ability of a contaminant to move vertically (highly permeable soils increase contamination potential).

e. *Topography*—it refers to the slope of the land surface (steep slopes are more conducive to high runoff capacity, rapid erosion and contamination of surface waters and provide less

probability of infiltration into ground water).

f. *Vadose zone media*—it refers to the water-saturated zone above the water table which controls the path-length and routing of contamination (similar to aquifer media).

g. *Hydraulic conductivity*—it refers to the ability of the aquifer material to transmit pollutants throughout the aquifer.

The source of water may be protected by natural factors such as the hydrogeologic characteristics described above, or regulatory discharge controls. However, other conditions may arise that could lead to contamination problems. For example, even geologically invulnerable formations can be polluted by improper well construction or discharging into existing wells. Also, areas with cool, moist climates, where evaporation is low and rainfall is high are likely to be conducive to pesticide transport to ground water, particularly where such conditions exist during or shortly after application.

Irrigation practices may also facilitate contaminant movement. For surface water sources, a sanitary survey and an examination of upstream waste dischargers or agricultural runoff can indicate the extent of pollution activities that affect the vulnerability of surface water systems. Contamination of surface water systems from agricultural runoff is influenced by the timing of rainfall events after application.

The above criteria may be used by individual states to determine the vulnerability of public water systems to contamination by pesticides.

List of Subjects in 40 CFR Parts 141, 142 and 143

Chemicals, Reporting and recordkeeping requirements, Water supply, Administrative practice and procedure.

William K. Reilly,
Administrator, Environmental Protection Agency.

Date: April 27, 1989.

For the reasons set forth in the preamble, Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

1. The authority citation for Part 141 continues to read as follows:

Authority: 42 U.S.C. 300g-1, 300g-3, 300g-6, 300j-4 and 300j-9.

2. In § 141.11, paragraph (b) is amended by removing the entry for

"silver" from the table, and by revising the text of paragraph (b) preceding the table to read as follows:

§ 141.11 Maximum contaminant levels for inorganic chemicals.

(b) The following maximum contaminant levels for barium, cadmium, chromium, mercury, nitrate, and selenium shall remain effective until [insert date 18 months after publication of final rule in the Federal Register].

3. Section 141.23, is revised to read as follows:

§ 141.23 Inorganic chemical sampling and analytical requirements.

Community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in § 141.11 or 141.62 (as appropriate) in accordance with this section. Non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels in § 142.62 in accordance with this section. Transient, non-community water systems shall conduct monitoring to determine compliance with the nitrate and nitrite maximum contaminant levels in § 141.11 and § 141.62 (as appropriate) in accordance with this section.

(a) Monitoring shall be conducted as follows:

(1) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(2) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(3) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(4) The State may reduce the total number of samples which must be

analyzed by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory. If the concentration in the composite sample indicates contamination by one or more inorganic chemicals, then a follow-up sample must be taken at each sampling point included in the composite and analyzed for the contaminants which were present in the composite sample within 14 days.

(5) The frequency of monitoring for barium, cadmium, chromium, fluoride, mercury, and selenium shall be in accordance with paragraph (c) of this section, the frequency of monitoring for asbestos shall be in accordance with paragraph (d) of this section; the frequency of monitoring for nitrate and nitrite shall be in accordance with paragraph (e) of this section.

(b) Monitoring conducted to determine compliance with the maximum contaminant level for asbestos specified in § 141.62 shall be conducted as follows:

(1) No community or non-transient, non-community water system is required to monitor for asbestos unless the State determines the system is vulnerable, to asbestos contamination in its source water or due to corrosion of asbestos-cement pipe, or both. The State shall make this determination by [insert date 18 months from publication of the final rule in the Federal Register], based on a consideration of the following factors:

(i) Potential asbestos contamination of the water source,

(ii) The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.

(2) If the system is determined by the State in accordance with paragraph (b)(1) of this section to be vulnerable to asbestos contamination in its source water, the system shall monitor in accordance with the provisions of paragraph (a) of this section.

(3) If the system is determined by the State in accordance with paragraph (b)(1) of this section to be vulnerable to asbestos contamination due to corrosion of asbestos-cement pipe, the system shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

(4) If the system is determined by the State in accordance with paragraph (b)(1) of this section to be vulnerable to asbestos contamination both in its raw water supply and due to corrosion of asbestos-cement pipe, the system shall take one sample at a tap served by asbestos-cement pipe and under

conditions where asbestos contamination is most likely to occur.

(5) Systems designated as vulnerable to asbestos contamination may be redesignated by the State as not vulnerable based upon the results of initial monitoring and a revised assessment that it is not vulnerable to asbestos contamination.

(c) The frequency of monitoring conducted to determine compliance with the maximum contaminant levels in §§ 141.11 or 141.62 (as appropriate) for barium, cadmium, chromium, fluoride, mercury, and selenium shall be as follows:

(1) Groundwater systems shall monitor once every three years and surface water systems shall monitor once every year.

(2) The State may reduce the three year and one year monitoring frequencies specified in paragraph (c)(1) of this section to no less than once every ten years provided that surface water systems have monitored annually for at least three years and that groundwater systems have conducted a minimum of three rounds of monitoring and all previous analytical results are <50 percent of the maximum contaminant level. Systems that use a new water source are not eligible for reduced monitoring until three rounds of monitoring from the new source have been completed. In determining the appropriate reduced monitoring frequency, the State shall consider:

(i) Reported concentrations from all previous monitoring;

(ii) The degree of variation in reported concentrations; and

(iii) Other factors which may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the system's configuration, changes in the system's operating procedures, or changes in stream flows or characteristics.

(3) A decision by the State to reduce the monitoring frequency shall be made in writing and shall set forth the basis for the determination. The determination may be initiated by the State or upon an application by the public water system. The public water system shall specify the basis for its request. The State shall review and, where appropriate, revise its determination of the appropriate monitoring frequency when the system submits new monitoring data or when other data relevant to the system's appropriate monitoring frequency becomes available.

(4) Each community water system shall complete the first round of monitoring required by paragraph (c)(1) of this section and report the results to

the State by [insert 18 months after publication of this final rule in the Federal Register].

(5) Each non-transient, non-community water system shall complete the first round of monitoring required by paragraph (c)(1) of this section and report the results to the State by [insert four years after publication of this final rule in the Federal Register].

(d) Each community and non-transient, non-community water system determined by the State in accordance with paragraph (b)(1) of this section to be vulnerable to asbestos contamination shall conduct one round of monitoring and report the results to the State by [insert five years from publication of this final rule in the Federal Register].

(1) For those systems where the level of asbestos in any sample in the initial round of monitoring is ≥ 50 percent of the MCL for asbestos, monitoring for ground water systems shall be repeated every three years and monitoring for surface water systems shall be repeated every year.

(2) For those systems where the level of asbestos in each sample in the initial round of monitoring is ≥ 50 percent of the MCL for asbestos, the State shall determine whether repeat monitoring is required and, if so, the frequency of such monitoring.

(e) Each community, non-transient, non-community; and transient, non-community water system shall monitor to determine compliance with the maximum contaminant level for nitrate in § 141.11 or § 141.62(b) (as appropriate) and for nitrite in § 141.62(b).

(1) Community and non-transient, non-community water systems served by ground water systems shall monitor annually; systems served by surface water shall monitor quarterly.

(2) For community and non-transient, non-community water systems, the repeat monitoring frequency for ground water systems shall be quarterly for at least one year following any one sample in which the concentration is ≥ 50 percent of the MCL. The State may allow a ground water system to reduce the sampling frequency to annually after four consecutive quarterly samples are < 50 percent of the MCL.

(3) For community and non-transient, non-community water systems, the State may allow a surface water system to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are < 50 percent of the MCL. A surface water system shall return to quarterly

monitoring if any one sample is ≥ 50 percent of the MCL.

(4) Each transient non-community water system served by groundwater shall monitor for nitrate and nitrite every three years. Each non-community water system served by surface water shall monitor for nitrate and nitrite annually.

(5) Each sample must be taken at the time of highest vulnerability to nitrate/nitrite contamination (i.e., after rain and/or application of fertilizer).

(6) Each community water system shall complete the initial monitoring required by paragraph (e)(1) of this section (as appropriate) and report the results to the State by [insert 18 months after publication of this final rule in the Federal Register].

(7) Each non-transient, non-community water system shall complete the initial monitoring required by paragraph (e)(1) of this section and report the results to the State by [insert 4 years after publication of this final rule in the Federal Register].

(8) Each transient non-community water system shall complete the initial monitoring required by paragraph (e)(4) of this section and report the results to the State by [insert 4 years after publication of this final rule in the Federal Register].

(f) Confirmation samples:

(1) Where the results of sampling for asbestos, barium, cadmium, chromium, fluoride mercury, or selenium indicate an exceedance of the maximum contaminant level, the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point.

(2) Where nitrate or nitrite sampling results indicate an exceedance of the maximum contaminant level, the system shall take a confirmation sample within 24 hours of the system's receipt of notification of the analytical results of the first sample. Both samples must be analyzed and the results reported to the State within two weeks of the initial sampling.

(3) If a confirmation sample is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with paragraph (h) of this section. States have the discretion to delete results of obvious sampling errors.

(g) The State may require more frequent monitoring than specified in paragraphs (b), (c), (d) and (e) of this

section or may require confirmation samples for positive and negative results at its discretion.

(h) Compliance with § 141.11 or 141.62(b) (as appropriate) shall be determined based on the analytical result obtained at each sampling point.

(1) For systems which are conducting quarterly monitoring, compliance with the maximum contaminant levels for asbestos, barium, cadmium, chromium, fluoride, mercury, and selenium is determined by a running annual average at each sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any one sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(2) For systems which are monitoring annually, or less frequently, the system is out of compliance with the maximum contaminant levels for asbestos, barium, cadmium, chromium, fluoride, mercury and selenium if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the State, the determination of compliance will be based on the average of the two samples.

(3) Compliance with the maximum contaminant levels for nitrate and nitrite is determined based on one sample if the levels of these contaminants is below the MCL. If the levels of nitrate or nitrite exceed the MCLs in the initial sample, a confirmation sample is required in accordance with paragraph (f)(2) of this section, and compliance shall be determined based on the average of the initial and confirmation samples.

(4) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, only that part of the system that exceeds the MCL as specified in § 141.11 or 141.62(b) (as appropriate) will be out of compliance. The State may allow the system to give public notice to only that portion of the system which is out of compliance.

(i) The State has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

(j) Inorganic analysis:

(1) Analysis for asbestos, barium, cadmium, chromium, mercury, nitrate, nitrite, and selenium shall be conducted using the following methods:

METHODOLOGY FOR INORGANIC CONTAMINANTS

Contaminant	Methodology ¹¹	EPA ¹	Reference (Method Number)		
			ASTM ²	SM ³	Other
Asbestos.....	Transmission electron microscopy.....	EPA ⁹			
Barium.....	Graphite furnace Atomic absorption; technique ^a	208.2		304	
	Atomic absorption; direct aspiration ^b	208.1		303C	
	Inductively-coupled plasma-Atomic emission ^c	200.7A ⁶			
Cadmium.....	Graphite furnace Atomic absorption; technique.....	213.2		304	
	Inductively-coupled plasma ^c	200.7A ⁶			
Chromium.....	Atomic absorption; furnace technique ^a	218.2		304 ⁷	
	Atomic absorption; direct aspiration ^b	218.1	D1687-84D	303A or B	
	Inductively-coupled plasma ^c	200.7A ⁶			
Mercury.....	Manual cold vapor technique.....	245.1	D3223-80	303F	
	Automated cold vapor technique.....	245.2			
Nitrate.....	Manual cadmium reduction.....	353.3	D3867-85B	481C	
	Automated hydrazine reduction.....	353.1			
	Automated cadmium reduction.....	353.2	D3867-85A	418F	
	Ion selective electrode.....				WeWWG/ 5880 ⁸ B-1011 ¹⁰
Nitrite.....	Ion chromatography.....	300.0			
	Spectrophotometric.....	354.1			
	Automated cadmium reduction.....	353.2	D3867-85A	418F	
	Manual cadmium reduction.....	353.3	D3867-85B	418C	
	Ion chromatography.....	300.0			B-1011 ¹⁰
Selenium.....	Atomic absorption; gaseous hydride.....	270.3	D3859-84A	303E	I-3667-85 ⁴
	Atomic absorption; furnace ^a	270.2	D3859-84B	304 ⁸	

^a Graphite furnace Atomic Absorption Spectroscopy (GFAA).

^b Direct Aspiration Atomic Absorption Spectroscopy (AA).

^c Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES).

¹ "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268 (EPA-600/4-79-020), March 1983. Available from ORD Publications, CERL, EPA, Cincinnati, OH 45268.

² Annual Book of ASTM Standards, Vol. 11.01 American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

³ "Standard Methods for the Examination of Water and Wastewater," 16th edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.

⁴ "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Techniques of Water-Resources Investigations of the U.S. Geological Survey Books, Chapter A1, 1985, Open-File Report 85-495. Available from Open-File Services Section, Western Distribution Branch, U.S. Geological Survey, MS 306 Box 24525, Denver Federal Center, Denver, CO 80225.

⁵ "Orion Guide to Water and Wastewater Analysis," Form WeWWG/5880, p. 5, 1985. Orion Research, Inc., Cambridge, MA.

⁶ "Inductively-Coupled Plasma Atomic Emission Analysis of Drinking Water," Appendix to Method 200.7, March 1987, U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.

⁷ The addition of 1 mL of 30% H₂O₂ to each 100 mL of standards and samples is required before analysis.

⁸ Prior to dilution of the Se calibration standards, add 2 mL of 30% H₂O₂ for each 100 mL of standard.

⁹ "Analytical Method for Determination of Asbestos Fibers in Water," EPA-600/4-83-043, September 1983, U.S. EPA, Environmental Research Laboratory, Athens, GA 30613.

¹⁰ "Waters Test Method for the Determination of Nitrite and Nitrate in Water Using Single Column Ion Chromatography, Method B-1011, Millipore Corporation, Waters Chromatography Division, 34 Maple Street, Milford, MA 01757.

¹¹ For approved analytical procedures for metals, the technique applicable to total metals must be used.

(2) Analyses for arsenic shall be conducted using the following methods:

Method ¹ 206.2, Atomic Absorption Furnace Technique; or Method ¹ 206.3, or Method ⁴ D2972-78B, or Method ²

301.A VII, pp. 159-162, or Method ³ I-1062-78, pp. 61-63, Atomic Absorption—Gaseous Hydride; or Method ¹ 206.4, or Method ⁴ D-2972-78A, or Method ¹²

404-A and 404-B(4), Spectrophotometric, Silver Diethyl-dithiocarbamate.

(3) Analyses for fluoride shall be conducted using the following methods:

METHODOLOGY FOR FLUORIDE

Methodology	Reference (method number)			
	EPA ¹	ASTM ⁴	SM ⁵	Other
Colorimetric SPADNS, with distillation.....	340.1	D1179-72A	43 A and C	
Potentiometric ion selective electrode.....	340.2	D1179-72B	413 B	
Automated alizarin fluoride blue, with distillation (complexone).....	340.3		413 E	129-71W ⁶
Automated ion selective electrode.....				380-75WE ⁷

¹ "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268 (EPA-600/4-79-020), March 1979. Available from ORD Publications, CERL, EPA, Cincinnati, Ohio 45268. For approved analytical procedures for metals, the technique applicable to total metals must be used.

¹ "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268 (EPA-600/4-79-020), March 1979. Available from ORD Publications, CERL, EPA, Cincinnati, Ohio 45268. For approved analytical procedures for metals, the technique applicable to total metals must be used.

² "Standard Methods for the Examination of Water and Wastewater," 14th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1976.

³ Techniques of Water-Resources Investigation of the United States Geological Survey, Chapter A-1, "Methods for Determination of Inorganic

Substances in Water and Fluvial Sediments," Book 5, 1979, Stock #014-001-03177-9. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

⁴ Annual Book of ASTM Standards, part 31 Water, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

² [Reserved]

³ [Reserved]

⁴ Annual Book of ASTM Standards, part 31 Water. American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

⁵ "Standard Methods for the Examination of Water and Wastewater," 16th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.

⁶ "Fluoride in Water and Wastewater, Industrial Method = 129-71W." Technicon Industrial Systems, Tarrytown, New York, 10591. December 1972.

⁷ "Fluoride in Water and Wastewater," Technicon Industrial Systems, Tarrytown, New York, 10591. February 1976.

(4) Sample collection for asbestos, barium, cadmium, chromium, fluoride, mercury, nitrate, nitrite, and selenium

under this section shall be conducted using the sample preservation,

container, and maximum holding time procedures specified in the table below:

Contaminant	Preservative ¹	Container ²	Maximum holding time ³
Asbestos.....	Cool, 4 °C.....	P or G.....	
Barium.....	Conc HNO ₃ to pH <2.....	P or G.....	6 months.
Cadmium.....	Conc HNO ₃ to pH <2.....	P or G.....	6 months.
Chromium.....	Conc HNO ₃ to pH <2.....	P or G.....	6 months.
Fluoride.....	None.....	P or G.....	1 month.
Mercury.....	Conc HNO ₃ to pH <2.....	G.....	38 days.
		P.....	14 days.
Nitrate			
Chlorinated.....	Cool, 4 °C.....	P or G.....	28 days.
Non-chlorinated.....	Conc H ₂ SO ₄ to pH <2.....	P or G.....	14 days.
Nitrite.....	Cool, 4 °C.....	P or G.....	48 hours.
Selenium.....	Conc HNO ₃ to pH <2.....	P or G.....	6 months.

¹ If HNO₃ cannot be used because of shipping restrictions, sample may be initially preserved by icing and immediately shipping it to the laboratory. Upon receipt in the laboratory, the sample must be acidified with conc HNO₃ to pH <2. At time of analysis, sample container should be thoroughly rinsed with 1:1 HNO₃; washings should be added to sample.

² P=plastic, hard or soft; G=glass, hard or soft.

³ In all cases, samples should be analyzed as soon after collection as possible.

(5) Analysis under this section shall only be conducted by laboratories that have received approval by EPA or the State. To receive approval to conduct analyses for asbestos, barium, cadmium, chromium, fluoride, mercury, nitrate, nitrite and selenium the laboratory must:

(i) Analyze Performance Evaluation samples which include those substances provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the State.

(ii) Achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant	Acceptance limit
Asbestos.....	2 standard deviations based on study statistics.
Barium.....	±15% at >0.15 mg/l.
Cadmium.....	±20% at >0.002 mg/l.
Chromium.....	±15% at >0.01 mg/l.
Fluoride.....	±10% at 1 to 10 mg/l.
Mercury.....	±30% at >0.0005 mg/l.
Nitrate.....	±10% at >0.4 mg/l.
Nitrite.....	±10% at >0.4 mg/l.
Selenium.....	±20% at >0.01 mg/l.

4. In § 141.24, paragraph (a) introductory text is revised, paragraph (e) is revised, paragraph (f) is removed and reserved; paragraph (g) introductory text is revised, paragraph (g)(4) and (g)(8)(i)(B) are revised, and a new paragraph (h) is added to read as follows:

§ 141.24 Organic chemicals other than total trihalomethanes, sampling and analytical requirements.

(a) Monitoring of endrin for purposes of determining compliance with the maximum contaminant level listed in § 141.12(a) shall be conducted as follows:

(1) * * *

(e) Analysis made to determine compliance with the maximum contaminant level for endrin in § 141.12(a) shall be made in accordance with "Methods for Organochlorine Pesticides and Chlorophenoxy Acid Herbicides in Drinking Water and Raw Source Water," available from ORD Publications, CERL, EPA, Cincinnati, Ohio 45268; or "Organochlorine Pesticides in Water," Annual Book of ASTM Standards, part 31, Water, Method D-3088-79; or Method 509-A, pp. 555-565;¹ or Gas Chromatographic Methods for Analysis of Organic Substances in Water,² USGS, Book 5, Chapter A-3, pp. 24-39.

¹ "Standard Methods for the Examination of Water and Wastewater," 14th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1976.

² Techniques of Water-Resources Investigation of the United States Geological Survey, Chapter A-3 "Methods for Analysis of Organic Substances in Water," Book 5, 1972, Stock #2401-1227. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(f) [Reserved]

(g) Monitoring of the contaminants listed in § 141.61(a) for purposes of determining compliance with the maximum contaminant levels shall be conducted as follows:

(1) * * *

(4) The schedule for monitoring is as follows:

(i) To determine compliance with the MCLs for benzene, vinyl chloride, carbon tetrachloride, 1,2-dichloroethane, trichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, and para-dichlorobenzene, each community water systems and non-transient non-community water system which serves more than 10,000 people shall analyze all distribution or entry-point samples, as appropriate, representing all source waters beginning no later than January 1, 1988. Each community water systems and non-transient non-community water systems serving from 3,300 to 10,000 people shall analyze all distribution or entry-point samples, as required in this paragraph (g), representing source waters beginning no later than January 1, 1989. All other community and non-transient non-community water systems shall analyze distribution or entry-point samples, as required in this paragraph (g), representing all source waters beginning no later than January 1, 1991.

(ii) For all other contaminants listed in § 141.61(a), (cis-1,2-dichloroethylene, 1,2-dichloropropane, ethylbenzene,

monochlorobenzene, o-dichlorobenzene, styrene, tetrachloroethylene, toluene, trans-1,2-dichloroethylene, and xylene(s)) each community water systems and non-transient, non-community water systems serving more than 10,000 people shall analyze and report results to the State, distribution or entry-point samples, as appropriate, representing all source waters to begin no later than *[six months after publication of this final rule in the Federal Register]*. All other community water systems and non-transient, non-community water systems serving from 3,300 to 10,000 people shall analyze and report results to the State all distribution or entry-point samples, as required in this paragraph (g), representing source waters to begin no later than *[18 months after publication of this final rule in the Federal Register]*. All other community and non-transient, non-community water systems shall analyze and report results to the State, all distribution or entry-point samples, as required in this paragraph (g), representing all source waters to be completed no later than *[42 months after publication of this final rule in the Federal Register]*.

(8) * * *

(i) * * *

(A) * * *

(B) When VOCs are not detected in the first year of quarterly sampling (or any subsequent sample that may be taken) and the system is vulnerable as defined in paragraph (g)(8)(iv) of this section,

(1) Monitoring (i.e., one sample) must be repeated every 3 years for systems > 500 connections.

(2) Monitoring (i.e., one sample) must be repeated every 5 years for systems > 500 connections.

(h) Analysis of the contaminants listed in § 141.61(c) shall be conducted during periods of highest susceptibility vulnerability (i.e., after rain, application of pesticides, etc.) as follows:

(1) The State shall determine by *[insert 18 months after publication of this final rule in the Federal Register]* whether a community or non-transient, non-community water system is vulnerable to one or more contaminants based upon an assessment. The assessment shall consider the following factors:

(i) Previous analytical results.

(ii) The proximity of the system to a potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage

facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities. Non-point sources include the use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land application uses.

(iii) The environmental persistence of the pesticide or PCBs.

(iv) How well the water source is protected against contamination due to such factors as depth of the well and the type of soil.

(v) Elevated nitrate levels at the water supply source.

(vi) Use of PCBs in equipment used in the production, storage, or distribution of water (i.e., PCBs used in pumps, transformers, etc.).

(2) A system shall remain vulnerable to a contaminant listed in § 141.61(c) for a minimum of three years after detection of one or more such contaminants. Upon meeting the three year minimum the State may reclassify the system's vulnerability as to the contaminant(s) based upon a revised assessment.

(3) Upon a finding by the State that a system is vulnerable to one or more contaminants listed in § 141.61(c) each community and non-transient, non-community water system so designated shall monitor for the contaminants for which it was found vulnerable every three months for one year and report the results to the State by *[insert 4 years after publication of final rule in the Federal Register]*. After the initial monitoring, systems shall monitor in accordance with paragraphs (h) (12) and (13) of this section.

(4) A system may request the State to reassess its vulnerability to one or more contaminants listed in § 141.61(c) provided the initial monitoring conducted under paragraph (h)(3) of this section does not detect contamination.

(5) Systems are required to monitor only for contaminants listed in § 141.61(c) to which the system is vulnerable. Systems which are not classified as vulnerable to any contaminants listed in § 141.61(c) are not required to monitor.

(6) Vulnerable ground water systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(7) Vulnerable surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each

entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(8) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).

(9) The State may require a confirmation sample for positive or negative results. If a confirmation sample is taken, the confirmation result is averaged with the first sampling result and the average is used for the compliance determination as specified by § 141.24(h)(14). States have discretion to delete results of obvious sampling errors from this calculation.

(10) The State may reduce the total number of samples a system must analyze by allowing the use of compositing. Composit samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory and analyzed within 14 days of sample collection. If the concentration in the composite sample detects one or more contaminants listed in § 141.61(c), then a follow-up sample must be taken and analyzed within 14 days from each sampling point included in the composite. If duplicates of the original sample taken from each sampling point used in the composite are available, the system may use these instead of resampling. The duplicate must be analyzed and the results reported to the State within 14 days of collection.

(11) For the initial round of sampling each vulnerable community and non-transient, non-community water system shall take a minimum of one sample every three months for one year (i.e., four quarterly samples) at each sampling point and analyze for the contaminants listed in § 141.61(c) to which it is vulnerable.

(12) The repeat monitoring frequency for groundwater systems after the year of initial monitoring is as follows:

(i) When an organic contaminant(s) listed in § 141.61(c) and analyzed by the system is not detected during the initial year of quarterly monitoring or any repeat monitoring required by paragraph (h)(12)(i) of this section, then:

(A) Systems > 500 service connections must monitor at each sampling point for the contaminants to which they are vulnerable every 3 years.

(B) Systems <500 service connections must monitor at each sampling point for the contaminants to which they are vulnerable every 5 years.

(ii) When an organic contaminant listed in § 141.61(c) is detected in any sample taken during the first year of monitoring or any subsequent monitoring, then:

(A) Systems >500 service connections must subsequently monitor at each sampling point every 3 months for any contaminant listed in § 141.61(c) to which they are vulnerable. After a system conducts three years of quarterly sampling, the State may allow the system to reduce the monitoring frequency for a contaminant to an annual sample at each sampling point if the concentration of the contaminant in each sample analyzed in the previous 3 years is <50 percent of the MCL for that contaminant.

(B) Systems <500 service connections must monitor annually at each sampling point for 3 years for any contaminants listed in § 141.61(c) to which they are vulnerable. When an organic contaminant listed in § 141.61(c) is not detected during 3 consecutive years of sampling, then the State may reduce the monitoring frequency for that contaminant to every 3 years. States have the discretion to require systems to monitor more frequently at any time.

(13) The repeat monitoring frequency for surface water systems is as follows:

(i) When an organic contaminant listed in § 141.61(c) and analyzed by the system is not detected during the initial year of quarterly monitoring or any repeat monitoring required by paragraph (h)(13)(i) of this section, then:

(A) Systems >500 service connections must monitor quarterly at each sample point for the contaminants to which they are vulnerable for one year every three years.

(B) Systems <500 service connections must monitor quarterly at each sampling point for the contaminants to which they are vulnerable for one year every five years.

(ii) When an organic contaminant(s) listed in § 141.61(c) is detected in any sample taken during the first year of monitoring or any subsequent monitoring, then:

(A) Systems >500 service connections must subsequently monitor at each sampling point every three months for any contaminants listed in § 141.61(c) to which they are vulnerable. After a system conducts three years of quarterly sampling, the State may allow the system to reduce the monitoring frequency for a contaminant to an annual sample at each sampling point if the concentration of the contaminant in

each sample analyzed in the previous 3 years is <50 percent of the MCL for this contaminant.

(B) Systems <500 service connections must monitor annually at each sampling point for any contaminant listed in § 141.61(c) to which they are vulnerable. The State has the discretion to require systems to monitor more frequently (i.e., quarterly).

(14) Compliance with § 141.61(c) shall be determined based on the analytical results obtained at each sampling point.

(i) For ground water systems which are conducting quarterly monitoring, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(ii) For surface water systems which are conducting quarterly or more frequent monitoring, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance.

(iii) If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the State, the determination of compliance will be based on the average of two samples.

(iv) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, only that part of the system that exceeds the MCL as specified in § 141.61(c) will be out of compliance. The State may allow the system to give public notice to only that portion of the system which is out of compliance.

(15) Analysis for the contaminants listed in § 141.61(c) shall be conducted using the following EPA methods or their equivalent as approved by EPA.

(i) Method 504, "1,2-Dibromoethane (EDB) and 1,2-Dibromo-3-chloropropane (DBCP) in Water by Microextraction and Gas Chromatography." Method 504 can be used to measure dibromo-chloropropane and ethylene dibromide.

(ii) Method 505, "Analysis of Organohalide Pesticides and Aroclors in Drinking Water by Microextraction and Gas Chromatography." Method 505 can be used to measure alachlor, atrazine, chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, and

toxaphene. Method 505 can be used as a screen for PCBs.

(iii) Method 507, "Determination of Nitrogen- and Phosphorus-Containing Pesticides in Ground Water by Gas Chromatography with a Nitrogen-Phosphorus Detector." Method 507 can be used to measure alachlor and atrazine.

(iv) Method 508, "Determination of Chlorinated Pesticides in Ground Water by Gas Chromatography with an Electron Capture Detector." Method 508 can be used to measure chlordane, heptachlor, heptachlor epoxide, lindane and methoxychlor. Method 508 can be used as a screen for PCBs.

(v) Method 508A, "Total Polychlorinated Biphenyls (PCBs) by Perchlorination/Gas Chromatography." Method 508A is used to quantitate PCBs (as decachlorobiphenyl).

(vi) Method 515.1, "Determination of Chlorinated Acids in Ground Water by Gas Chromatography with an Electron Capture Detector." Method 515.1 can be used to measure 2,4-D, 2,4,5-TP (Silvex) and pentachlorophenol.

(vii) Method 531.1, "Measurement of N-Methyl Carbamoyloximes and N-Methyl Carbamates in Ground Water by Direct Aqueous Injection HPLC with Post-Column Derivatization." Method 531.1 can be used to measure aldicarb, aldicarb sulfoxide, aldicarb sulfone, and carbofuran.

(16) Analysis for PCBs shall be conducted as follows:

(i) Each system which monitors for PCBs shall analyze each sample using either Method 505 or Method 508 (see paragraph (15)).

(ii) If PCBs (as Aroclors or as any individual or group of isomers or congeners) are detected in any sample analyzed using Methods 505 or 508, the system shall reanalyze the sample using Method 508A to quantitate PCBs (as decachlorobiphenyl).

(iii) Compliance with the PCB MCL shall be determined based upon the quantitative results of analyses using Method 508A.

(17) If monitoring data collected after January 1, 1986, was generally consistent with the requirements of § 141.24(h), then the State may allow systems to use that data to satisfy the initial monitoring requirement of § 141.24(h)(3).

(18) The State may increase the required monitoring frequency, where necessary, to detect variations within the system (e.g., fluctuations in concentration due to seasonal use, changes in water source).

(19) The State has the authority to determine compliance or initiate

enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

5. In § 141.32, paragraph (a)(1)(iii)(B) is revised, paragraphs (e) (10) through (14) are reserved, and paragraphs (e) (15) through (52) are added to read as follows:

§ 141.32 General Public Notification Requirements.

(a) * * *

(1) * * *

(iii) * * *

(B) Violation of the MCL for nitrate/nitrite as defined in § 141.11 or § 141.62 (as appropriate) and determined according to § 141.23(h)(3).

* * *

(e) * * *

(10)–(14) Reserved

(15) *Asbestos*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that asbestos fibers greater than 10 μm are a health concern at certain levels of exposure. Asbestos is a naturally occurring mineral. Most asbestos fibers in drinking water are less than 10 μm in length and occur in drinking water from natural sources. Asbestos was once a popular insulating and fire retardant material used for pipes and heating equipment and may get into drinking water as asbestos cement pipes corrode over time. Ingestion of asbestos is associated with cancer in rats. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for asbestos at 7 million long fibers per liter to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to asbestos.

(16) *Barium*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that barium is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in some types of minerals that may serve as sources of ground water. It is also used in oil and gas drilling muds, automotive paints, bricks, tiles and jet fuels. It generally gets into drinking water after dissolving from naturally occurring minerals in the ground. This chemical has been shown to damage the heart and cardiovascular system, and is associated with high blood pressure in laboratory animals such as rats exposed

to high levels during their lifetimes. EPA has set the drinking water standard for barium at 5 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to barium.

(17) *Cadmium*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that cadmium is a health concern at certain levels of exposure. Smoking of tobacco is a common source of general exposure. This inorganic metal is a contaminant in the metals used to galvanize pipe. It generally gets into water by corrosion of galvanized pipes or by improper waste disposal. This chemical has been shown to damage the kidney in animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the kidney. EPA has set the drinking water standard for cadmium at 0.005 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to cadmium.

(18) *Chromium*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that chromium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in the electroplating of metals. It generally gets into water from runoff from old mining operations and improper waste disposal from plating operations. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some humans who were exposed to this chemical suffered liver and kidney damage, dermatitis and respiratory problems. EPA has set the drinking water standard for chromium at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to chromium.

(19) *Mercury*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that mercury is a health concern at certain levels of exposure.

This inorganic metal is used in electrical equipment and some water pumps. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the kidney of laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for mercury at 0.002 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to mercury.

(20) *Nitrate*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or as a result of agricultural fertilizing activity. Excessive levels of nitrate in drinking water has caused serious illness and sometimes death in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe. EPA has set the drinking water standard at 10 parts per million (ppm) for nitrate to protect against the risk of these adverse effects. EPA has also set a drinking water standard for nitrite at 1 ppm. To allow for the fact that the toxicity of nitrate and nitrite are additive, EPA has also established a standard for effective nitrate (the sum of nitrate and nitrite) at 10 ppm. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrate.

(21) *Nitrite*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has

determined that nitrite poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or as a result of agricultural fertilizing activity. While excessive levels of nitrite in drinking water have not been observed, other sources of nitrite have caused serious illness and sometimes death in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe. EPA has set the drinking water standard at 1 part per million (ppm) for nitrite to protect against the risk of these adverse effects. EPA has also set a drinking water standard for nitrate at 10 ppm and for effective nitrate (the sum of nitrate and nitrite) at 10 ppm. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrite.

(22) *Selenium*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that selenium is a health concern at certain high levels of exposure. Selenium is also an essential nutrient at low levels of exposure. This inorganic chemical is found naturally in soils and is used in electronics, photocopy operations, the manufacture of glass, chemicals, drugs, and as a fungicide and a feed additive. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, nervous system, and circulatory

system. EPA has set the drinking water standard for selenium at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to selenium.

(23) *Acrylamide*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that acrylamide is a health concern at certain levels of exposure. Polymers made from this chemical are sometimes used to treat water supplies to remove particulate contaminants. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for acrylamide using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of acrylamide which may be added to drinking water to remove particulate contaminant. Drinking water which uses this treatment technique is associated with little to none of this risk and should be considered safe with respect to acrylamide.

(24) *Alachlor*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that alachlor is a health concern at certain levels of exposure. This organic chemical is a widely used pesticide. It generally gets in to drinking water after application to corn, soy beans or other crops. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for alachlor at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to alachlor.

(25) *Aldicarb*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb is a health concern at certain levels of exposure.

Aldicarb is a widely used pesticide and generally gets into drinking water after application to crops such as potatoes or peanuts. This chemical has been shown to damage the nervous system in laboratory animals such as rats exposed to high levels. EPA has set the drinking water standard for aldicarb at 0.01 parts per million (ppm) to protect against the risk of adverse health effects. EPA has also set a drinking water standard of 0.01 ppm for total aldicarb. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to aldicarb.

(26) *Aldicarb sulfoxide*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb sulfoxide is a health concern at certain levels of exposure. Aldicarb sulfoxide is a widely used pesticide and generally gets into drinking water after application to crops such as potatoes or peanuts. This chemical has been shown to damage the nervous system in laboratory animals such as rats exposed to high levels. EPA has set the drinking water standard for aldicarb sulfoxide at 0.01 parts per million (ppm) to protect against the risk of adverse health effects. EPA has also set a drinking water standard of 0.01 ppm for total aldicarb. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to aldicarb sulfoxide.

(27) *Aldicarb sulfone*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb sulfone is a health concern at certain levels of exposure. Aldicarb sulfone is a widely used pesticide and generally gets into drinking water after application to crops such as potatoes or peanuts. This chemical has been shown to damage the nervous system in laboratory animals such as rats exposed to high levels. EPA has set the drinking water standard for aldicarb sulfone at 0.04 parts per million (ppm) to protect against the risk of adverse health effects. EPA has also set a drinking water standard of 0.01 ppm for total aldicarb. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to aldicarb sulfone.

(28) *Atrazine*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that atrazine is a health concern at certain levels of exposure. This organic chemical is a herbicide. It generally gets into drinking water by runoff into surface water or leaching

into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as dogs and rats exposed at high levels over their lifetimes. EPA has set the drinking water standard for atrazine at 0.003 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to atrazine.

(29) *Carbofuran*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that carbofuran is a health concern at certain levels of exposure. This organic chemical is a pesticide. It generally gets into water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the nervous and reproductive systems of laboratory animals such as rats and mice exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the nervous system. EPA has set the drinking water standard for carbofuran at 0.04 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to carbofuran.

(30) *Chlordane*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that chlordane is a health concern at certain levels of exposure. This organic chemical is a pesticide used to control termites. It usually gets into drinking water after application near water supply intakes or wells. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for chlordane at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to chlordane.

(31) *Dibromochloropropane (DBCP)*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that DBCP is a health concern at certain

levels of exposure. This organic chemical was once a popular pesticide. It generally gets into drinking water after application to crops. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for DBCP at 0.0002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to DBCP.

(32) *o-Dichlorobenzene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that o-dichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent in the production of pesticides and dyes. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and the blood cells of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, nervous system, and circulatory system. EPA has set the drinking water standard for o-dichlorobenzene at 0.6 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to o-dichlorobenzene.

(33) *cis-1,2-Dichloroethylene*. The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that cis-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for cis-1,2-dichloroethylene at 0.07 parts per

million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to cis-1,2-dichloroethylene.

(34) *trans-1,2-Dichloroethylene*. The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that trans-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and the circulatory system of laboratory animals such as rats and mice when exposed high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for trans-1,2-dichloroethylene at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to trans-1,2-dichloroethylene.

(35) *1,2-Dichloropropane*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2-dichloropropane is a health concern at certain levels of exposure. This organic chemical is used as a solvent and pesticide. It generally gets into drinking water by runoff into surface water or leaching into ground water as a result of pesticide application and improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for 1,2-dichloropropane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 1,2-dichloropropane.

(36) *2,4-D*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4-D is a health concern at certain levels of exposure. This organic chemical is used to control

algae in reservoirs. It generally leaches into groundwater or runs off into surface water after application as a weed killer. This chemical has been shown to produce adverse effects characterized by damage to the liver and kidney of laboratory animals such as rats exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4-D at 0.07 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 2,4-D.

(37) *Epichlorohydrin*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that epichlorohydrin is a health concern at certain levels of exposure. Polymers made from this chemical are sometimes used in the treatment of water supplies as a flocculant to remove particulates. It generally gets into drinking water by improper use of water treatment chemicals. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for epichlorohydrin using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of epichlorohydrin which may be added to drinking water as a flocculant to remove particulate. Drinking water which uses this treatment technique is associated with little to none of this risk and should be considered safe with respect to epichlorohydrin.

(38) *Ethylbenzene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined ethylbenzene is a health concern at certain levels of exposure. This organic chemical is a major component of gasoline. It generally gets into water by improper waste disposal or leaking gasoline tanks. This chemical has been shown to damage the kidney, liver, and nervous system of laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for ethylbenzene at 0.7 parts per million (ppm) to protect against the risk of these

adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to ethylbenzene.

(39) *Ethylene Dibromide (EDB)*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that EDB is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. It generally gets into drinking water after application to crops by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for EDB at 0.00005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to EDB.

(40) *Heptachlor*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that heptachlor is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standards for heptachlor at 0.0004 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to heptachlor.

(41) *Heptachlor Epoxide*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that heptachlor epoxide is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such

as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standards for heptachlor epoxide at 0.0002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to heptachlor epoxide.

(42) *Lindane*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lindane is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. It generally gets into drinking water by runoff into surface water or leaching into ground water after application to crops. This chemical has been shown to damage the liver, kidney, nervous system, and immune system of laboratory animals such as rats, mice and dogs exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system and circulatory system. EPA has established the drinking water standard for lindane at 0.0002 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to lindane.

(43) *Methoxychlor*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that methoxychlor is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. It generally gets into water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous system, and circulatory system of laboratory animals such as rats exposed at high levels during their lifetimes. It has also been shown to produce growth retardation in rats. EPA has set the drinking water standard for methoxychlor at 0.4 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to methoxychlor.

(44) *Monochlorobenzene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and

has determined that monochlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. EPA has set the drinking water standard for monochlorobenzene at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to monochlorobenzene.

(45) *Polychlorinated biphenyls (PCBs)*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that polychlorinated biphenyls (PCBs) are a health concern at certain levels of exposure. These organic chemicals were once widely used in electrical transformers and other industrial equipment. They generally get into drinking water by improper waste disposal or leaking electrical industrial equipment. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for PCBs at 0.0005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to PCBs.

(46) *Pentachlorophenol*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that pentachlorophenol is a health concern at certain levels of exposure. This organic chemical is used as a wood preservative, herbicide, disinfectant, and defoliant. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to produce adverse reproductive effects and to damage the liver and kidneys of laboratory animals such as rats exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the liver and kidneys. EPA has set the drinking water standard for pentachlorophenol at 0.2 parts per million (ppm) to protect

against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to pentachlorophenol.

(47) *Styrene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that styrene is a health concern at certain levels of exposure. This organic chemical is commonly used to make plastics and is sometimes a component of resins used for drinking water treatment and by improper waste disposal. This chemical has been shown to cause cancer in laboratory rats and mice when the animals are exposed to high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over a long period of time. EPA has set the drinking water standard for styrene at 0.005/1 parts per million (ppm) to reduce the risk of cancer and other adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to styrene.

(48) *Tetrachloroethylene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that tetrachloroethylene is a health concern at certain levels of exposure. This organic chemical has been a popular general and dry cleaning solvent. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for tetrachloroethylene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to tetrachloroethylene.

(49) *Toluene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that toluene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and in the manufacture of gasoline for airplanes. It generally gets into water by improper waste disposal or leaking underground storage tanks.

This chemical has been shown to damage the kidney, nervous system, and circulatory system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, kidney and nervous system. EPA has set the drinking water standard for toluene at 2 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to toluene.

(50) *Toxaphene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that toxaphene is a health concern at certain levels of exposure. This organic chemical was once a pesticide widely used on cotton, corn, soybeans, pineapples and other crops. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for toxaphene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to toxaphene.

(51) *2,4,5-TP*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4,5-TP is a health concern at certain levels of exposure. This organic chemical is used as a herbicide. It generally gets into water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4,5-TP at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to

none of this risk and should be considered safe with respect to 2,4,5-TP.

(52) *Xylene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that xylene is a health concern at certain levels of exposure. This organic chemical is used in the manufacture of gasoline for airplanes and as a solvent for pesticides, and as a cleaner and degreaser of metals. It usually gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for xylene at 10 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to xylene.

6. In § 141.40 the section heading is revised and new paragraphs (n) through (p) are added to read as follows:

§ 141.40 Special monitoring for inorganic and organic chemicals.

(n) Monitoring of the organic contaminants listed in § 141.40(n)(10) shall be conducted during periods of highest vulnerability as follows:

(1) The State shall determine whether a community or non-transient, non-community water system is vulnerable to one or more contaminants based upon an assessment. The assessment shall consider the criteria specified in § 141.24(h)(1).

(2) Upon a finding by the State that the system is vulnerable to a contaminant listed in § 141.40(n)(10), each community and non-transient, non-community water system so designated shall monitor for the contaminant every 3 months for one year and report the results to the State by *[insert 4 years after publication of the final rule in the Federal Register]*.

(3) Systems which are not designated by the State as vulnerable to a contaminant listed in § 141.40(n)(10) are not required to monitor for that contaminant.

(4) Vulnerable ground water systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point

more representative of each source or treatment plant.

(5) Vulnerable surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(6) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).

(7) The State may require a confirmation sample for positive or negative results.

(8) The State may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory and the composite sample must be analyzed within 14 days of collection.

(9) Instead of performing the monitoring required by this section, a community water system or non-transient non-community water system serving fewer than 150 service connections may send a letter to the State stating that the system is available for sampling. This letter must be sent to the State no later than 3 years after promulgation of final rule. The system shall not send such samples to State, unless requested to do so by the State.

(10) List of Unregulated Organic Contaminants:

Contaminant	EPA analytical method
(i) Metribuzin.....	507, 508
(ii) Hexachlorobenzene.....	505, 508
(iii) Dalapon.....	515.1
(iv) Dinoseb.....	515.1
(v) Picloram.....	515.1
(vi) Oxamyl (vydate).....	531.1
(vii) Simazine.....	505, 507
(viii) Glyphosate.....	547
(ix) Hexachlorocyclopentadiene.....	505, 525
(x) PAHs.....	525, 550, 550.1
(xi) Phthalates.....	506, 525
(xii) 2,3,7,8-TCDD (Dioxin).....	513
(xiii) Aldrin.....	505, 508
(xiv) Dieldrin.....	505, 508
(xv) 2,4-DB.....	515.1
(xvi) Dicamba.....	515.1
(xvii) 2,4,5-T.....	515.1
(xviii) Carbaryl.....	531.1
(xix) 3-Hydroxycarbofuran.....	531.1
(xx) Methomyl.....	531.1
(xxi) Butachlor.....	505, 507

Contaminant	EPA analytical method
(xxii) Metolachlor.....	505, 507
(xxiii) Propachlor.....	505, 507

(o) Monitoring of the inorganic contaminants listed in § 141.40(o)(9) shall be conducted as follows:

(1) The State shall determine whether a community or non-transient, non-community water system is vulnerable to one or more contaminants based upon an assessment. The assessment shall consider the potential contamination of the water source by a contaminant(s) listed in § 141.40(o)(9).

(2) Upon a finding by the State that the system is vulnerable to a contaminant(s) listed in § 141.40(o)(9), each community and non-transient, non-community water system so designated shall monitor as specified below for the contaminant(s) and report the results to the State by *[insert 4 years after publication of the final rule in the Federal Register]*.

(3) Systems which are not designated by the State as vulnerable to a contaminant listed in § 141.40(o)(9) are not required to monitor.

(4) Vulnerable groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point).

(5) Vulnerable surface water systems shall take a minimum of one sample at every entry point to the distribution system or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point).

(6) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(7) The State may reduce the total number of samples which must be analyzed by the system by allowing the use of compositing. Compositing of samples must be done in the laboratory. Composite samples from a maximum of five sampling points are allowed.

(8) Instead of performing the monitoring required by this section, a community water system or non-transient non-community water system serving fewer than 150 service connections may send a letter to the State stating that the system is available for sampling. This letter must be sent to the State no later than 3 years after

promulgation of final rule. The system shall not sent such samples to State, unless requested to do so by the State.

(9) List of Unregulated Inorganic Contaminants:

Contaminant	EPA analytical method
(i) Antimony.....	Graphite Furnace Atomic Absorption; Inductively Coupled Plasma.
(ii) Beryllium.....	Graphite Furnace Atomic Absorption; Inductively Coupled Mass Spectrometry Plasma; Spectrophotometric.
(iii) Nickel.....	Atomic Absorption; Inductively Coupled Plasma; Graphite Furnace Atomic Absorption.
(iv) Sulfate.....	Colorimetric.
(v) Thallium.....	Graphite Furnace Atomic Absorption; Inductively Coupled Mass Spectrometry Plasma.
(vi) Cyanide.....	Spectrophotometric.

(p) The State has the discretion to require monitoring for the contaminants listed below. Each system required by the State to monitor shall use the procedures specified in § 141.40(n) paragraphs (4), (5), (6), (7), (8), and (9).

Contaminant	EPA analytical method
(1) Ametryn.....	507
(2) Aspon.....	507
(3) Atraton.....	507
(4) Azinphos methyl.....	507
(5) Bolstar.....	507
(6) Bromacil.....	507
(7) Butylate.....	507
(8) Carboxin.....	507
(9) Chloroprotham.....	507
(10) Coumophos.....	507
(11) Cycloate.....	507
(12) Demeton-O.....	507
(13) Demeton-S.....	507
(14) Diazinon.....	507
(15) Dichlofenthion.....	507
(16) Dichlorvos.....	507
(17) Diphenamid.....	507
(18) Disulfoton.....	507
(19) Disulfoton sulfone.....	507
(20) Disulfoton sulfoxide.....	507
(21) EPN.....	507
(22) EPTC.....	507
(23) Ethion.....	507
(24) Ethoprop.....	507
(25) Ethyl parathion.....	507
(26) Famphur.....	507
(27) Fenamiphos.....	507
(28) Fenarimol.....	507
(29) Fenitrothion.....	507
(30) Fensulfotthion.....	507
(31) Fenthion.....	507
(32) Fluridone.....	507
(33) Fonofos.....	507
(34) Hexazinone.....	507
(35) Malathion.....	507
(36) Merphos.....	507
(37) Methyl paraoxon.....	507
(38) Methyl parathion.....	507
(39) Mevinphos.....	507
(40) MGK 264.....	507
(41) MGK 326.....	507
(42) Molinate.....	507
(43) Napropamide.....	507
(44) Nortriflurazone.....	507

Contaminant	EPA analytical method
(45) Pebulate.....	507
(46) Phorate.....	507
(47) Phosmet.....	507
(48) Prometon.....	507
(49) Prometryn.....	507
(50) Pronamide.....	507
(51) Propazine.....	507
(52) Simetryn.....	507
(53) Stirofos.....	507
(54) Tebuthiuron.....	507
(55) Terbacil.....	507
(56) Terbufos.....	507
(57) Terbutryn.....	507
(58) Triademafon.....	507
(59) Tricyclazole.....	507
(60) Vernolate.....	507
(61) Chlorneb.....	508
(62) Chlorobenzilate.....	508
(63) Chloropropylate.....	508
(64) Chlorothalonil.....	508
(65) Chlorpyrifos.....	507, 508
(66) DCPA.....	508
(67) 4,4'-DDD.....	508
(68) 4,4'-DDE.....	508
(69) 4,4'-DDT.....	508
(70) Dichloran.....	508
(71) Endosulfan I.....	508
(72) Endosulfan II.....	508
(73) Endosulfan sulfate.....	508
(74) Endrin aldehyde.....	508
(75) Etridiazole.....	508
(76) BCH-alpha.....	505, 508
(77) BCH-beta.....	505, 508
(78) BCH-delta.....	505, 508
(79) BCH-gamma.....	505, 508
(80) cis-Permethrin.....	508
(81) trans-Permethrin.....	508
(82) Trifluralin.....	507, 508
(83) Diquat.....	549
(84) Endothall.....	548

7. Section 141.50 is amended by adding paragraphs (a)(6) through (a)(18) and entries (4) through (21) in the table in paragraph (l) as follows:

§ 141.50 Maximum contaminant level goals for organic chemicals.

(a) * * *
(6) Acrylamide.
(7) Alachlor.
(8) Chlordane.
(9) Dibromochloropropane.
(10) 1,2-Dichloropropane.
(11) Epichlorohydrin.
(12) Ethylene dibromide.
(13) Heptachlor.
(14) Heptachlor epoxide.
(15) Polychlorinated biphenyls (PCBs).
(16) Styrene.
(17) Tetrachloroethylene.
(18) Toxaphene.
(b) * * *

Contaminant	MCLG (mg/l)
(4) Aldicarb.....	0.01
(5) Aldicarb sulfide.....	0.01
(6) Aldicarb sulfone.....	0.04
(7) Atrazine.....	0.003
(8) Carbofuran.....	0.04

Contaminant	MCLG (mg/l)
(9) o-Dichlorobenzene.....	0.6
(10) cis-1,2-Dichloroethylene.....	0.07
(11) trans-1,2-Dichloroethylene.....	0.1
(12) 2,4-D.....	0.07
(13) Ethylbenzene.....	0.7
(14) Lindane.....	0.0002
(15) Methoxychlor.....	0.4
(16) Monochlorobenzene.....	0.1
(17) Pentachlorophenol.....	0.2
(18) Styrene.....	0.1
(19) Toluene.....	2
(20) 2,4,5-TP.....	0.05
(21) Xylenes (total).....	10

8. Section 141.51 is amended by adding entries (2) through (9) in the table in paragraph (b) to read as follows:

§ 141.51 Maximum contaminant level goals for inorganic contaminants.

(b) * * *

Contaminant	MCLG (mg/l)
(2) Asbestos.....	7 Million fibers/liter (longer than 10 µm).
(3) Barium.....	5.
(4) Cadmium.....	0.005.
(5) Chromium.....	0.1.
(6) Mercury.....	0.002.
(7) Nitrate*.....	10 (as Nitrogen).
(8) Nitrite*.....	1 (as Nitrogen).
(9) Selenium.....	0.05.

* MCLG for total nitrate and nitrite = 10 mg/l.

9. Section 141.60, is revised to read as follows:

§ 141.60 Effective dates.

(a) The effective dates for § 141.61 are as follows:

(1) The effective date for paragraphs (a)(1) through (a)(8) of § 141.61 is January 9, 1989.

(2) The effective date for paragraphs (a)(9) through (a)(18) and (c)(1) through (c)(18) of § 141.61 is [insert 18 months after publication of final rule in the Federal Register].

(b) The effective dates for § 141.62 are as follows:

(1) The effective date of paragraph (b)(1) of § 141.62 is October 2, 1987.

(2) The Effective date for paragraphs (b)(2) through (b)(9) of § 141.62 is [insert 18 months after publication of final rule in the Federal Register].

10. Section 141.61, is revised to read as follows:

§ 141.61 Maximum Contaminant levels for organic contaminants.

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1) 71-43-2	Benzene	0.005
(2) 56-23-5	Carbon tetrachloride	0.005
(3) 107-06-2	1,2-Dichloroethane	0.005
(4) 79-01-6	Trichloroethylene	0.005
(5) 106-46-7	para-Dichlorobenzene	0.075
(6) 75-35-4	1,1-Dichloroethylene	0.007
(7) 71-55-6	1,1,1-Trichloroethane	0.2
(8) 75-01-4	Vinyl chloride	0.002
(9) 156-59-2	cis-1,2-Dichloroethylene	0.07
(10) 78-87-5	1,2-Dichloropropane	0.005

CAS No.	Contaminant	MCL (mg/l)
(11) 100-41-4	Ethylbenzene	0.7
(12) 108-90-7	Monochlorobenzene	0.1
(13) 95-50-1	o-Dichlorobenzene	0.6
(14) 100-42-5	Styrene	0.005/0.1
(15) 127-18-4	Tetrachloroethylene	0.005
(16) 108-88-3	Toluene	2
(17) 156-60-5	trans-1,2-Dichloroethylene	0.1
(18) 1330-20-7	Xylenes (total)	10

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below either granular activated carbon (GAC), packed tower aeration (PTA), or both as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for synthetic organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR SYNTHETIC ORGANIC CONTAMINANTS LISTED IN SECTION 141.61 (a) AND (c)

CAS No.	Chemical	GAC	PTA
15972-60-8	Alachlor	X	
116-06-3	Aldicarb	X	
1646-88-4	Aldicarb sulfone	X	
1646-87-3	Aldicarb sulfoxide	X	
1912-24-9	Atrazine	X	
71-43-2	Benzene	X	X
1563-86-2	Carbofuran	X	
56-23-5	Carbon tetrachloride	X	X
57-74-9	Chlordane	X	
94-75-7	2,4-D	X	
96-12-8	Dibromochloropropane (DBCP)	X	X
95-50-1	o-Dichlorobenzene	X	X
107-06-2	1,2-Dichloroethane	X	X
156-59-2	cis-1,2-Dichloroethylene	X	X
156-60-5	trans-1,2-Dichloroethylene	X	X
75-35-4	1,1-Dichloroethylene	X	X
78-87-5	1,2-Dichloropropane	X	X
106-93-4	Ethylene Dibromide (EDB)	X	X
100-41-4	Ethylbenzene	X	X
76-44-8	Heptachlor	X	
1024-57-3	Heptachlor epoxide	X	
58-89-9	Lindane	X	
72-43-5	Methoxychlor	X	
108-90-7	Monochlorobenzene	X	X
106-46-7	para-Dichlorobenzene	X	X
1336-36-3	Polychlorinated biphenyls (PCBs)	X	
87-86-5	Pentachlorophenol	X	
100-42-5	Styrene	X	X
93-72-1	2,4,5-TP (Silvex)	X	
127-18-4	Tetrachloroethylene	X	X
71-55-6	1,1,1-Trichloroethane	X	X
79-01-6	Trichloroethylene	X	X
108-88-3	Toluene	X	
8001-35-2	Toxaphene	X	X
75-01-4	Vinyl chloride	X	X
1330-20-7	Xylene	X	X

(c) The following Maximum Contaminant Levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1) 15972-60-8	Alachlor	0.002
(2) 116-06-3	Aldicarb	0.01
(3) 1646-87-3	Aldicarb sulfoxide	0.01
(4) 1646-88-4	Aldicarb sulfone	0.04
(5) 1912-24-9	Atrazine	0.003
(6) 1563-86-2	Carbofuran	0.04
(7) 57-74-9	Chlordane	0.002
(8) 96-12-8	Dibromochloropropane	0.0002
(9) 94-75-7	2,4-D	0.07

CAS No.	Contaminant	MCL (mg/l)
(10) 106-93-4	Ethylene dibromide	0.00005
(11) 76-44-8	Heptachlor	0.0004
(12) 1024-57-3	Heptachlor epoxide	0.0002
(13) 58-89-9	Lindane	0.0002
(14) 72-43-5	Methoxychlor	0.4
(15) 1336-36-3	Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	0.0005
(16) 87-86-5	Pentachlorophenol	0.2
(17) 8001-35-2	Toxaphene	0.005
(18) 93-72-1	2,4,5-TP	0.05

11. In Section 141.62 paragraph (b) is revised and a new paragraph (c) is added to read as follows:

§ 141.62 Maximum contaminant levels for inorganic contaminants.

(a) [Reserved]

(b) The Maximum Contaminant Levels for inorganic contaminants specified in paragraphs (b) (2) through (6) and (b)(9) of this section apply to community water systems and non-transient, non-community water systems. This Maximum Contaminant Level specified in paragraph (b)(1) of this section only applies to community water systems. The Maximum Contaminant Levels specified in paragraphs (b)(7) and (b)(8) of this section apply to community; non-transient, non-community; and transient non-community water systems.

Contaminant	MCL (mg/l)
(1) Fluoride.....	4
(2) Asbestos.....	7 Million Fibers/liter (longer than 10 μm)
(3) Barium.....	5
(4) Cadmium.....	0.005
(5) Chromium.....	0.1
(6) Mercury.....	0.002
(7) Nitrate*	10 (as Nitrogen)
(8) Nitrite*	1 (as Nitrogen)
(9) Selenium.....	0.05

* MCL for total nitrate and nitrite = 10 mg/l

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

BAT FOR INORGANIC CONTAMINANTS LISTED IN § 141.62(b)

Chemical name	BAT(s)
Asbestos.....	2, 3, and 8.
Barium.....	5, 6, and 7.
Cadmium.....	2, 5, 6, and 7.
Chromium.....	2, 5, 6 ² , and 7.
Mercury.....	2 ¹ , 4, 6 ¹ , and 7. ¹
Nitrate.....	5, and 7.
Nitrite.....	5, and 7.
Selenium.....	1, 2 ³ , 6, and 7.

¹ BAT only if influent Hg concentrations <10 μg/l.

² BAT for Chromium III only.

³ BAT for Selenium IV only.

Key to BATs in Table

- 1=Activated Alumina
- 2=Coagulation/Filtration
- 3=Direct and Diatomite Filtration
- 4=Granular Activated Carbon
- 5=Ion Exchange
- 6=Lime Softening
- 7=Reverse Osmosis
- 8=Corrosion Control

12. A new Subpart K is added to Part 141 to read as follows:

Subpart K—Treatment Techniques

Sec.

141.110 General requirements.

141.111 Treatment techniques for acrylamide and epichlorohydrin.

Subpart K—Treatment Techniques

§ 141.110 General requirements.

The requirements of Subpart K constitute national primary drinking water regulations. These regulations establish treatment techniques in lieu of maximum contaminant levels for specified contaminants.

§ 141.111 Treatment techniques for acrylamide and epichlorohydrin.

Each public water system must certify annually in writing to the State that when acrylamide and epichlorohydrin are used in drinking water systems, the combination of dose and monomer level does not exceed the levels specified as follows:

Acrylamide = 0.05% dosed at 1 ppm
Epichlorohydrin = 0.01% dosed at 20 ppm

PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

1. The authority citation for Part 142 continues to read as follows:

Authority: 42 U.S.C. 300g-2, 300g-3, 300g-4, 300g-5, 300j-4 and 300j-9.

2. In § 142.14, paragraph (d) is amended by reserving paragraphs (d)(4) through (d)(10) and by adding new paragraphs (d)(11) through (d)(16) as follows:

§ 142.14 Records kept by States.

* * *

(d) * * *

(4)–(10) [Reserved]

(11) Records of any determination of a system's vulnerability to contamination made pursuant to §§ 141.23(b), 141.24(g) and (h), and 141.40(n) and (o). The records shall also include the basis for such determination.

(12) Records of any determination, made pursuant to §§ 141.23(c), 141.23(e), and/or 141.24(g) and (h) that a system may decrease the frequency of its monitoring and records of any determination, made pursuant to §§ 141.23(g), 141.24(g)(13) and 141.24(h)(18) requiring a system to increase monitoring frequency. The records shall include the basis for the decision and the new required monitoring frequency.

(13) Records of any determination made pursuant to § 141.23(d)(2) that a system is required to conduct repeat monitoring for asbestos, the basis for that decision, and the repeat monitoring frequency.

(14) Records of any decisions that systems must monitor for the unregulated contaminants listed in § 141.40(n) and (o).

(15) Records of any letters received from systems serving less than 150 service connections stating that the system is available for sampling for the contaminants listed in § 141.40(n) and (o).

(16) Records of annual certifications received from systems pursuant to Part 141 Subpart K demonstrating the system's compliance with the treatment techniques for acrylamide and/or epichlorohydrin in § 141.111.

3. In § 142.15, paragraph (a) is amended by reserving paragraphs (a)(1) through (a)(11) and by adding new paragraphs (a)(12) through (a)(17) as follows:

§ 142.15 Reports by States.

(a) * * *

(1)–(11) [Reserved]

(12) A list, including the PWS identification number, of all systems, on which, the State has conducted a vulnerability assessment pursuant to §§ 141.23(b), 141.24(g) and (h), 141.40(n) or 141.40(o). The report shall include the State's classification of the system as either vulnerable or not vulnerable to each contaminant and the basis for that determination.

(13) A list, including the PWS identification number of all systems which, the State has determined pursuant to §§ 141.23(c), 141.23(e) and/or 141.24(g) and (h) may decrease the frequency of its monitoring, and a list of all systems which the State has determined pursuant to §§ 141.23(g), and 141.24(g)(13) and 141.24(h)(18), that it must increase monitoring frequency. The report shall include the basis for the State's decisions and the new required monitoring frequency.

(14) A list, including the PWS identification number, of all systems which the State has determined must conduct repeat monitoring for asbestos, the basis for that determination, and the frequency of such repeat monitoring.

(15) The results of any monitoring conducted for the contaminants listed in § 141.40(n), (o), and (p).

(16) A list, including the PWS identification number, of those systems serving under 150 service connections which have sent letters to the State stating that their systems are available for sampling for the contaminants listed in §§ 141.40(n) and 141.40(o).

(17) A list, including the PWS identification number, of those systems which certified compliance with the treatment technique for acrylamide and epichlorohydrin specified in Part 141, Subpart K.

* * *

4. Section 142.16 is amended by reserving paragraphs (b) through (d) and by adding a new paragraph (e) to read as follows:

§ 142.16 Special Primacy Requirements.

* * *

(b)–(d) [Reserved]

(e) An application for approval of a State program revision which adopts the requirements specified in §§ 141.23, 141.24, 141.40, 141.61, and 141.62 must contain the following:

(1) The procedure the State will use to conduct vulnerability assessments as required by §§ 141.23, 141.24, and 141.40. The procedure must include the factors the State will use in conducting vulnerability assessments and the method the State will use to inform the system of its classification as either vulnerable or not vulnerable. The procedure shall also include provisions for reclassification of systems and the factors the State will use in reclassifying.

(2) The procedure the State will use in determining that a system may decrease the frequency of its monitoring (as provided for by §§ 141.23 and 141.24), including the factors a State will use in making this determination as well as the method the State will use to inform the system of its new required monitoring frequency.

5. Section 142.57 is revised to read as follows:

§ 142.57 Bottled water and point-of-use devices.

(a) A State may require a public water system to use bottled water or point-of-use devices as a condition for granting an exemption from the requirements of §§ 141.61(a) and 141.62 of this part.

(b) Public water systems that use bottled water as a condition of obtaining an exemption from the requirements of §§ 141.61(c) and 141.62 must meet the requirements set out in § 142.62(f) of this part.

(c) Public water systems that use point-of-use devices as a condition for receiving an exemption must meet the requirements set out in § 142.62(g) of this part. Public water systems that use point-of-use devices as a condition for receiving an exemption must meet the requirements set out in § 141.64(f) of this part.

6. Section 142.62 is revised to read as follows:

§ 142.62 Variances and exemptions from the maximum contaminant levels for synthetic organic and inorganic chemicals.

(a) The Administrator, pursuant to section 1415(a)(1)(A) of the Act hereby identifies the technologies listed in paragraphs (a)(1) through (a)(36) of this section as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for synthetic organic chemicals as listed in § 141.61 (a) and (c) and the maximum contaminant levels for inorganic chemicals listed in this § 141.62.

Best available technologies	Contaminant	
	Packed tower aeration	Granular activated carbon
(1) Benzene	X	X
(2) Carbon tetrachloride	X	X
(3) 1,2-Dichloroethane	X	X
(4) Trichloroethylene	X	X
(5) para-Dichlorobenzene	X	X
(6) 1,2-Dichloroethylene	X	X
(7) 1,1,1-Trichloroethane	X	X
(8) Vinyl chloride	X	X
(9) cis-1,2-Dichloroethylene	X	X
(10) 1,2-Dichloropropane	X	X
(11) Ethylbenzene	X	X
(12) Monochlorobenzene	X	X
(13) o-Dichlorobenzene	X	X
(14) Styrene	X	X
(15) Tetrachloroethylene	X	X
(16) Toluene	X	X
(17) trans-1,2-Dichloroethylene	X	X
(18) Xylenes (total)	X	X
(19) Alachlor	X	X
(20) Aldicarb	X	X
(21) Aldicarb sulfone	X	X
(22) Aldicarb sulfone	X	X
(23) Atrazine	X	X
(24) Carbofuran	X	X
(25) Chlordane	X	X
(26) Dibromochloropropane	X	X
(27) 2,4-D	X	X
(28) Ethylene dibromide	X	X
(29) Heptachlor	X	X
(30) Heptachlor epoxide	X	X
(31) Lindane	X	X
(32) Methoxychlor	X	X
(33) PCBs	X	X
(34) Pentachlorophenol	X	X
(35) Toxaphene	X	X
(36) 2,4,5-TP	X	X

(b) A State shall require community water systems and non-transient, non-community water systems to install and/or use any treatment method identified in § 142.62(a) as a condition for granting a variance except as provided in paragraph (c) of this section. If, after the system's installation of the treatment method, the system cannot meet the MCL, that system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(c) If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in § 142.62(a) would only achieve a *de minimus* reduction in contaminants, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(d) If the State determines that a treatment method identified in paragraph (c) of this section is technically feasible, the Administrator or primacy State may require the system to install and/or use that treatment method in connection with a compliance

schedule issued under the provisions of section 1415(a)(1)(A) of the Act. The State's determination shall be based upon studies by the system and other relevant information.

(e) The State may require a public water system to use bottled water or point-of-use devices or other exemption from the requirements of § 141.61 (a), (c) or this § 141.62 to avoid an unreasonable risk to health.

(f) Public water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of § 141.61 (a), (c) or this § 141.62 must meet the requirements specified in either paragraph (f)(1) or (f)(2) of this section in addition to requirements in paragraph (f)(3) of this section:

(1) The Administrator or primacy State must require and approve a monitoring program for bottled water. The public water system must develop and put in place a monitoring program that provides reasonable assurances that the bottled water meets all MCLs. The public water system must monitor a representative sample of the bottled water for all contaminants regulated under § 141.61 (a), (c) and § 141.62 the first quarter that it supplies the bottled water to the public, and annually thereafter. Results of the monitoring program shall be provided to the State annually.

(2) The public water system must receive a certification from the bottled water company that the bottled water supplied has been taken from an "approved source" as defined in 21 CFR 129.3(a); the bottled water company has conducted monitoring in accordance with 21 CFR 129.80(g) (1) through (3); and the bottled water does not exceed any MCLs or quality limits as set out in 21 CFR 103.35, 110, and 129. The public water system shall provide the certification to the State the first quarter after it supplies bottled water and annually thereafter.

(3) The public water system is fully responsible for the provision of sufficient quantities of bottled water to every person supplied by the public water system, via door-to-door bottled water delivery.

(g) Public water systems that use point-of-use devices as a condition for obtaining a variance or an exemption from NPDWRs must meet the following requirements:

(1) It is the responsibility of the public water system to operate and maintain the point-of-use treatment system.

(2) The public water system must develop a monitoring plan and obtain State approval for the plan before point-

of-use devices are installed for compliance. This monitoring plan must provide health protection equivalent to a monitoring plan for central water treatment.

(3) Effective technology must be properly applied under a plan approved by the State and the microbiological safety of the water must be maintained.

(4) The State must require adequate certification of performance, field testing, and, if not included in the certification process, a rigorous engineering design review of the point-of-use devices.

(5) The design and application of the point-of-use devices must consider the tendency for increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contactor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.

(6) All consumers shall be protected. Every building connected to the system must have a point-of-use device installed, maintained, and adequately monitored. The State must be assured that every building is subject to treatment and monitoring, and that the rights and responsibilities of the public water system customer convey with title upon sale of property.

7. A new § 142.64 is added to Subpart G to read as follows:

§ 142.64 Variances and exemptions from the maximum contaminant levels for the inorganic contaminants listed in § 141.62.

(a) The Administrator, pursuant to section 1415(a)(1)(A) of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the inorganic contaminants listed in § 141.62:

BAT FOR INORGANIC COMPOUNDS LISTED IN SECTION 141.62(b)

CAS No.	Chemical name	BAT(s)
	Asbestos.....	2, 3, 8
	Barium.....	5, 6, 7
	Cadmium.....	2, 5, 6, 7
	Chromium.....	2, 5, 6 ² , 7
	Mercury.....	2 ¹ , 4, 6 ¹ , 7 ¹
	Nitrate.....	5, 7
	Nitrite.....	5, 7
	Selenium.....	1, 2 ³ , 6, 7

¹ BAT only if influent Hg concentrations < 10 ug/l.

² BAT for Chromium III only.

³ BAT for Selenium IV only.

Key to BATs in Table

1= Activated Alumina

2= Coagulation/Filtration (not BAT for systems < 500 service connections)

3= Direct and Diatomite Filtration
4= Granular Activated Carbon
5= Ion Exchange
6= Lime Softening (not BAT for systems < 500 service connections)
7= Reverse Osmosis
8= Corrosion Control

(b) A State shall require community water systems and non-transient, non-community water systems to install and/or use any treatment method identified in § 141.64(a) as a condition for granting a variance except as provided in paragraph (c) of this section. If, after the system's installation of the treatment method, the system cannot meet the MCL, that system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(c) If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies that the treatment methods identified in § 141.64(a) would only achieve a *de minimis* reduction in contaminants, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(d) If the State determines that a treatment method identified in paragraph (c) of this section is technically feasible, the Administrator or primacy State may require the system to install and/or use that treatment method in connection with a compliance schedule issued under the provisions of section 1415(a)(1)(A) of the Act. The State's determination shall be based upon studies by the system and other relevant information.

(e) The State may require a public water system to use bottled water or point-of-use devices or other means as a condition of granting a variance or an exemption from the requirements of § 141.62, to avoid an unreasonable risk to health.

(f) Public water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of § 141.62 must meet the following requirements in either paragraph (f)(1) or (f)(2) of this section in addition to requirements in paragraph (f)(3) of this section:

(1) The Administrator or primacy State must require and approve a monitoring program for bottled water. The public water system must develop and put in place a monitoring program that provides reasonable assurances that the bottled water meets all MCLs. The public water system must monitor a representative sample of the bottled water for all contaminants regulated under § 141.62 the first quarter that it

supplies the bottled water to the public, and annually thereafter. Results of the monitoring program shall be provided to the State annually.

(2) The public water system must receive a certification from the bottled water company that the bottled water supplied has been taken from an "approved source" as defined in 21 CFR 129.3(a); the bottled water company has conducted monitoring in accordance with 21 CFR 129.80(g) (1) through (3); and the bottled water does not exceed any MCLs or quality limits as set out in 21 CFR 103.35, 110, and 129. The public water system shall provide the certification to the State the first quarter after it supplies bottled water and annually thereafter.

(3) The public water system is fully responsible for the provision of sufficient quantities of bottled water to every person supplied by the public water system, via door-to-door bottled water delivery.

(g) Public water systems that use point-of-use devices as a condition for obtaining a variance or an exemption from NPDWRs for inorganic compounds must meet the following requirements:

(1) It is the responsibility of the public water system to operate and maintain the point-of-use treatment system.

(2) The public water system must develop a monitoring plan and obtain State approval for the plan before point-of-use devices are installed for compliance. This monitoring plan must provide health protection equivalent to a monitoring plan for central water treatment.

(3) Effective technology must be properly applied under a plan approved by the State and the microbiological safety of the water must be maintained.

(4) The State must require adequate certification of performance, field testing, and, if not included in the certification process, a rigorous engineering design review of the point-of-use devices.

(5) The design and application of the point-of-use devices must consider the tendency for increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contactor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.

(6) All consumers shall be protected. Every building connected to the system must have a point-of-use device installed, maintained, and adequately monitored. The State must be assured that every building is subject to treatment and monitoring, and that the

rights and responsibilities of the public water system customer convey with title upon sale of property.

PART 143—NATIONAL SECONDARY DRINKING WATER REGULATIONS

1. The authority citation for Part 143 continues to read as follows:

Authority: 42 U.S.C. 300g-1(c), 300j-4, and 300j-9.

2. In § 143.3 the table is revised to read as follows:

§ 143.3 Secondary maximum contaminant levels.

Contaminant	Level
Aluminum.....	0.05 mg/l.
Chloride.....	250 mg/l.
Color.....	15 color units.
Copper.....	1 mg/l.
Corrosivity.....	Non-corrosive.
o-Dichlorobenzene.....	0.01 mg/l.
p-Dichlorobenzene.....	0.005 mg/l.
Ethylbenzene.....	0.03 mg/l.
Fluoride.....	2 mg/l.
Foaming agents.....	0.5 mg/l.
Iron.....	0.3 mg/l.
Manganese.....	0.05 mg/l.

Contaminant	Level
Odor.....	3 threshold odor number
Pentachlorophenol.....	0.03 mg/l.
pH.....	6.5-8.5.
Silver.....	0.09 mg/l.
Styrene.....	0.01 mg/l.
Sulfate.....	250 mg/l.
Toluene.....	0.04 mg/l.
Total dissolved solids (TDS).....	500 mg/l.
Xylenes (total).....	0.02 mg/l.
Zinc.....	5 mg/l.

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Disaster Relief Federal Register

Monday
May 22, 1989

Part III

Federal Emergency Management Agency

44 CFR Part 206

Disaster Assistance; Robert T. Stafford
Disaster Relief and Emergency
Assistance Act; Implementation, Etc.;
Interim Rules With Request for
Comments

FEDERAL EMERGENCY MANAGEMENT AGENCY

44 CFR Part 206

Disaster Assistance; Robert T. Stafford Disaster Relief and Emergency Assistance Act; Implementation, Etc.

AGENCY: Federal Emergency
Management Agency.

ACTION: Interim rule with request for
comments.

SUMMARY: President Reagan signed the Disaster Relief and Emergency Assistance Amendments of 1988 (Pub. L. 100-707) on November 23, 1988. This law amended the Disaster Relief Act of 1974, Pub. L. 93-288, and retitled it the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("the Stafford Act"). FEMA is today publishing Subparts A, B, and C of interim 44 CFR Part 206 to implement the Stafford Act. On March 21, 1989, FEMA published interim Subparts D, E, F, G, H, I, J, K, L, and M to implement the Stafford Act. Subparts A, B, and C will govern disasters or emergencies declared by the President on or after November 23, 1988. Existing regulations at 44 CFR Part 205 will remain in effect to govern those major disasters and emergencies declared prior to enactment of Pub. L. 100-707.

DATES: The interim rules covering Subparts A, B, and C will be effective on May 22, 1989. Comments from the public are encouraged; they will be accepted until July 21, 1989.

ADDRESS: Send written comments to the Rules Docket Clerk, Office of the General Counsel, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

FOR FURTHER INFORMATION CONTACT: Robert G. Chappell, Assistant Associate Director, Disaster Assistance Programs, State and Local Programs and Support, 500 C Street SW., Washington, DC 20472, or contact the program officer for the particular section in question.

SUPPLEMENTARY INFORMATION:

General Information (Subpart A)

Sections of the Stafford Act which apply to overall disaster assistance are codified in this subpart. The following major changes from prior law are noted:

1. The definition of a major disaster has been amended to limit the qualifying events to natural catastrophes, except for fire, flood, or explosion, which may be declared for any cause. In order to warrant a Presidential declaration of a major disaster, the determination must be made that damages are of sufficient

severity and magnitude to warrant Federal assistance to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused by the disaster event.

2. The definition of an emergency has been amended to include any occasion or instance for which Federal assistance is needed to supplement State and local efforts and capabilities to save lives, protect property, public health and safety, or to lessen or avert the threat of a catastrophe.

3. Section 317 of the Stafford Act provides for recovery of monies expended in providing Federal assistance when it is determined that any person intentionally caused the condition which resulted in a major disaster or emergency declaration. This is a new authority not included in previous disaster legislation.

4. Section 206.16, Audits and Investigations, has been included to reflect the new authority given in section 318 of the Act. Section 318 of the Act permits FEMA to (a) conduct audits and investigations necessary to assure compliance with the Act, (b) examine the books and records of any person related to activity funded under the Act, and (c) require audits by State and local governments in connection with assistance under the Act when necessary to assure compliance with the Act or related activities. Although the provisions of section 318(c) would allow FEMA to supplant the requirements of the Single Audit Act, and require audits by State and local governments, FEMA has decided to comply with the requirements of the Single Audit Act and not to implement those portions of this subsection of the Stafford Act which are inconsistent with the mandates of the Single Audit Act.

5. Assistance by Federal agencies has been amended to reflect minor changes authorized by the Stafford Act. In addition, for clarity, procedures for requesting assistance from other Federal agencies, and the reimbursement therefor, has been included. The information was previously shown in 44 CFR Part 205 as Subpart I.

For further information on provisions generally applicable to disaster assistance programs, contact Deborah Hart at 202-646-3612.

The Declaration Process (Subpart B)

This subpart outlines the process by which a major disaster or emergency may be declared, including additional actions which may result after a declaration.

1. The Stafford Act establishes statutory provisions for cost sharing by State and local governments. The procedures for the Governor's request have been amended to include a commitment that the State and local governments will assume the non-Federal share of costs required under the Act. The Governor's certification of compliance with cost-sharing requirements will satisfy the need for a State and local commitment, including the requirement that the State's commitment must be significant proportion of the combined State and local contribution. When no cost-shared programs are implemented, other State/local commitments may be required.

2. It is FEMA's responsibility to gather information pertaining to assistance requested by a Governor, and provide a recommendation to the President. The ultimate decision whether to activate the Act's authorities is the President's. In response to a Governor's request for a major disaster declaration, the President may declare either a major disaster or an emergency, or deny the Governor's request. The Governor's request for an emergency, however, may result only in a declaration of an emergency or denial of the request.

3. Assistance provided under a major disaster declaration may include a complete range of emergency and permanent assistance or may be limited to certain types of assistance. Assistance provided under an emergency declaration is limited only to emergency assistance necessary to save lives and protect property, public health and safety, or to lessen or avert the threat of a catastrophe.

The idea of restricting the recovery provisions and programs to cover primarily natural catastrophes under a major disaster is not new. Legislation was first introduced in 1982 to change the definitions of "major disaster" and "emergency" to establish separate statutory authorities for dealing with two distinct types of situations: (1) programs of response and recovery following "major disasters", primarily of "natural" origin, and (2) "emergency" programs of short-term, immediate response to provide needed life-saving, public health, safety and property-protecting measures in a broad range of incidents.

In S. Rpt. No. 97-459 dated May 28, 1982, accompanying S. 2250, 97th Cong. 2d Sess., the Committee on Environment and Public Works stated:

The authorities of title V permit the Government to provide needed life-saving, public health, safety and property-protecting measures in a broad range of incidents. The

Administration could then, in a more deliberate manner, determine whether to provide continuing assistance and, if so, identify the proper authorities under which to provide it. For unusual types of civil emergencies for which adequate response authorities do not exist, the Administration, and the Congress, as a result of enactment of the new title V, would have more time to design and enact legislation specifically tailored to the problem instead of relying upon the Disaster Relief Act of 1974 which was written to respond to a specific class of natural catastrophes for which the Act was tailored.

Although virtually identical legislation was proposed in several bills during the 1980's, the provisions did not become law until passage of the Disaster Relief and Emergency Assistance Amendments of 1988, Pub. L. 100-707. Nevertheless, the legislative history leading to the enactment of Pub. L. 100-707 indicates a clear Congressional intent to authorize a much more limited range of Federal assistance in response to "emergencies" than in response to "major disasters".

4. Under previous disaster legislation, Federal assistance could not be provided until a declaration was made by the President. A new authority under the Stafford Act permits emergency assistance to be provided by Department of Defense for 10 days during the immediate aftermath of an incident which may ultimately qualify for a major disaster or emergency declaration. The assistance must be requested by the Governor to the FEMA Associate Director. If justified, FEMA will direct the DOD through mission assignment to provide personnel and equipment to accomplish the task. The 75 percent Federal share of the cost of such assistance will be paid from funds appropriated for disaster relief under the Stafford Act. The remaining 25 percent will be paid by the State and local governments. This assistance will not supplant assistance provided by DOD or other Federal agencies under separate authorities.

5. Under section 501(b) of the Stafford Act, the President may declare an emergency, without a request from the Governor, if the emergency situation is one for which the primary responsibility rests with the Federal government. FEMA will coordinate with the Governor if practicable. This authority is not intended to be used to preempt the authorities of other Federal agencies or to fund other programs in place independent of the Stafford Act.

Section 503(a) of the Act includes a cost-sharing provision. The minimum Federal share is 75 percent. In a modified emergency declaration where the situation is a unique Federal

responsibility, the Federal share may be more than 75 percent. It is anticipated that such a declaration would be extremely rare. Such a declaration would be a deviation from normal experience and would have to be evaluated on a case by case basis.

6. Under certain limited conditions, FEMA may lend or advance a grantee the non-Federal share of assistance. FEMA interprets the "lending" and "advancing" authorities at section 319 of the Stafford Act to be identical. Therefore, FEMA considers all advances of the non-Federal share of disaster assistance to be tantamount to loans. The terms and conditions for loans and loan repayment are given in paragraph 206.45. There is no forgiveness feature authorized under the Act; therefore, all such loans must be repaid. In compliance with the Common Rule as referenced in 44 CFR Part 13, FEMA considers the "grantee" to be the State. Therefore, all loans will be to the State as the grantee. It will be the responsibility of the State to distribute and administer loans to subgrantees.

FEMA will evaluate each loan request on its own merits, considering, as an example, disaster related expenditures incurred by the grantee over the preceding 12 months, or the impact of a catastrophic event on the budgets of State and local governments and how it affects their ability to provide continuing services to their constituents.

7. Section 320 of the Act stipulates that an arithmetic formula or sliding scale may not be used as the sole basis for denying assistance. FEMA has included a list of factors in § 206.37 which will be used to evaluate all requests for a declaration of major disaster or emergency. Therefore, no arithmetic formula or sliding scale will be used as the sole basis for denying disaster assistance.

8. Regulations published in 44 CFR Part 205 outlined specific language that would be used in FEMA-State Agreements. We have modified the paragraph on FEMA-State Agreements to outline the process, rather than to identify any mandatory language for such agreements. In a modified declaration for a Federal emergency, a FEMA-State Agreement may not be required where there is little or no State and local involvement in the assistance provided.

For further information on the declaration process, contact Deborah Hart at 202-646-3612.

Emergency Assistance (Subpart C)

Title V of the Stafford Act redefines the circumstance for which an emergency may be declared and the

assistance which may be provided under an emergency declaration. The declaration process for emergencies is included in Subpart B. Subpart C contains a description of the assistance available after an emergency declaration and of when that assistance may be authorized.

1. Assistance under an emergency declaration is limited to essential work to save and protect lives, property, health, and safety, or to lessen or avert the threat of a catastrophe. No long term or permanent restorative assistance is authorized. Title V of the Act specifically identifies the kind of assistance that may be provided under an emergency declaration. The only specific Stafford Act major disaster authorities (i.e., authorized by Title IV of the Act) that Congress also made available in Title V are debris removal under Section 407 of the Act, and temporary housing assistance under Section 408 of the Act.

2. Title V of the Act indicates a clear Congressional intent that the resources and authorities of other Federal agencies will be utilized first. Only if such authorities and resources are inadequate to meet immediate emergency needs will FEMA implement emergency assistance programs under the Act.

Prior to enactment of Pub. L. 100-707, discussions in both the Senate and the House of Representatives indicate the clear intent that Stafford Act emergency declarations should not be used to override other Federal response mechanisms already in place. For example, Congressman Stangeland, one of the sponsors of H.R. 2707, 100th Cong., 2d Sess., and a member of the House Committee for Public Works and Transportation, remarked on p. H943, Cong. Rec., March 17, 1988:

The committee, however, does not intend for emergency declarations to be available in responding to public health problems such as AIDS epidemics or environmental or nuclear catastrophes for which Federal assistance is already available. Nor do we intend to interfere with existing Federal emergency authorities or the Comprehensive Crime Control Act's law enforcement emergency assistance provisions.

Likewise, a page 4 in S. Rpt. No. 100-524 (September 7, 1988), which accompanied S. 2380, 100th Cong., 2d Sess., the Committee on Environment and Public Works of the United States Senate stated:

In any emergency the President must first invoke other Federal authorities available to him to meet the crisis. If there are other authorities, the role of the Federal Emergency Management Agency would be limited to

providing technical assistance and coordinating the efforts of other Federal agencies under authorities granted to them under other Federal acts. Only after a determination that assistance under other Federal authorities is inadequate to meet the crisis may FEMA directly intervene. Up to \$5 million in Federal assistance may be provided to FEMA for each emergency before the President is required to ask the Congress for additional authority or funds. Under the bill, emergency assistance differs from the emergency program available under current law.

This comment is consistent with remarks made by the Senate Committee on Environment and Public Works in S. Rpt. No. 98-448 (May 14, 1984), which accompanied S. 2517, 98th Cong., 2d Sess.

In the event of a declaration, all agencies providing assistance will operate under the coordination of the Federal Coordinating Officer.

3. There is a funding cap of \$5,000,000 per declaration. If it becomes necessary to exceed this limitation for any one incident, a report must be made to Congress and, if necessary, additional legislation would be proposed.

For further information on emergency assistance, contact Deborah Hart at 202-646-3612.

Environmental Considerations

An environmental assessment has been prepared, leading to the determination that this rule will not have a significant impact on the environment and that an Environmental Impact Statement is not required. The assessment is available for review at the Office of the Rules Docket Clerk, Office of General Counsel, Federal Emergency Management Agency, 500 C Street, SW., Washington, DC 20472.

Regulatory Flexibility

FEMA has determined that this rule is not a major rule under Executive Order 12291, and will not have a significant impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act. Hence, no regulatory impact analyses have been prepared.

Federalism Assessment

In promulgating these rules, FEMA has considered the President's Executive Order on Federalism issued on October 26, 1978 (E.O. 12612, 52 FR 41685). The purpose of the order is to assure the appropriate division of governmental responsibilities between national government and the States. Among other provisions, this rule implements the requirement that agency rules be in accordance with the so-called common rule, adopted by FEMA at 44 CFR Part

13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. These regulations conform FEMA assistance to the executive order; to describe this, a Federalism assessment has been prepared. It may be obtained or reviewed at the Office of the Rules Docket Clerk, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

Reporting Requirements

The Office of Management and Budget has approved the information collection requirements contained in Subparts B and C of this rule under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501, *et. seq.*, and has assigned OMB Control Number 3067-0113.

List of Subjects in 44 CFR Part 206

Disaster assistance: General, The declaration process, Emergency assistance, Individual assistance, Public assistance, The Coastal Barrier Resources Act, Community disaster loans, Fire suppression, Hazard mitigation.

Accordingly, FEMA is making the following changes to Chapter I, Subchapter D, of Title 44, as follows:

PART 206—FEDERAL DISASTER ASSISTANCE DECLARED ON OR AFTER NOVEMBER 23, 1988

1. The authority citation for Part 206 continues to read as follows:

Authority: 42 U.S.C. 5121; Reorganization Plan No. 3 of 1978 (3 CFR, 1979, p. 329); Executive Order 12148 (3 CFR, 1980, p. 412); the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Pub. L. 93-288, as amended by Pub. L. 100-707.

2. Adding three new subparts to Part 206, as follows:

Subpart A—General

- 206.1 Purpose.
- 206.2 Definitions.
- 206.3 Policy.
- 206.4 State emergency plans.
- 206.5 Assistance by other Federal agencies.
- 206.6 Donation or loan of Federal equipment and supplies.
- 206.7 Implementation of assistance from other Federal agencies.
- 206.8 Reimbursement of other Federal agencies.
- 206.9 Nonliability.
- 206.10 Use of local firms and individuals.
- 206.11 Nondiscrimination in disaster assistance.
- 206.12 Use and coordination of relief organization.
- 206.13 Standards and reviews.
- 206.14 Criminal and civil penalties.
- 206.15 Recovery of assistance.
- 206.16 Audits and investigations.

- 206.17 Emergency mass care.
- 206.18 Payments to States.
- 206.19 Effective date.
- 206.20-206.30 [Reserved]

Subpart B—The Declaration Process

- 206.31 Purpose.
- 206.32 Definitions.
- 206.33 Preliminary damage assessment.
- 206.34 Request for utilization of Department of Defense (DOD) resources.
- 206.35 Requests for emergency declarations.
- 206.36 Requests for major disaster declarations.
- 206.37 Processing requests for declarations of a major disaster or emergency.
- 206.38 Presidential determination.
- 206.39 Notification.
- 206.40 Designation of affected areas and eligible assistance.
- 206.41 Appointment of disaster officials.
- 206.42 Responsibilities of coordinating officers.
- 206.43 Emergency support teams.
- 206.44 FEMA-State Agreements.
- 206.45 Advance of non-Federal share.
- 206.46 Appeals.
- 206.47-206.60 [Reserved]

Subpart C—Emergency Assistance

- 206.61 Purpose.
- 206.62 Available assistance.
- 206.63 Provision of assistance.
- 206.64 Coordination of assistance.
- 206.65 Cost sharing.
- 206.66 Limitation on expenditures.
- 206.67 Requirement when limitation is exceeded.
- 206.68-206.100 [Reserved]

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Subpart A—General

§ 206.1 Purpose.

The purpose of this subpart is to prescribe the policies and procedures to be followed in implementing those sections of Pub. L. 93-288, as amended by Pub. L. 100-707, assigned to the Director, Federal Emergency Management Agency (FEMA).

§ 206.2 Definitions.

(a) *General.* The following definitions have general applicability throughout this part:

(1) The Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. 93-288, as amended by Pub. L. 100-707.

(2) Applicant: Individuals, families, State and local governments, or private nonprofit organizations who apply for assistance as a result of a declaration of a major disaster or emergency.

(3) Associate Director: The Associate Director for State and Local Programs and Support, FEMA, or his/her designated representative.

(4) Concurrent, Multiple Major Disasters: In considering a request for an advance, the term concurrent

multiple major disasters means major disasters which occur within a 12-month period immediately preceding the major disaster for which an advance of the non-Federal share is requested pursuant to section 319 of the Stafford Act.

(5) Contractor: Any individual, partnership, corporation, agency, or other entity (other than an organization engaged in the business of insurance) performing work by contract for the Federal Government or a State or local agency.

(6) Designated area: Any emergency or major disaster-affected portion of a State which has been determined eligible for Federal assistance.

(7) Director: The Director, FEMA.

(8) Disaster Recovery Manager (DRM): The person appointed to exercise the authority of a Regional Director for a particular emergency or major disaster.

(9) Emergency: Any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.

(10) Federal agency: Any department, independent establishment, Government corporation, or other agency of the executive branch of the Federal Government, including the United States Postal Service, but shall not include the American National Red Cross.

(11) Federal Coordinating Officer (FCO): The person appointed by the Director, or in his absence, the Deputy Director, or alternatively the Associate Director, to coordinate Federal assistance in an emergency or a major disaster.

(12) Governor: The chief executive of any State or the Acting Governor.

(13) Governor's Authorized Representative (GAR): The person empowered by the Governor to execute, on behalf of the State, all necessary documents for disaster assistance.

(14) Hazard Mitigation: Any cost effective measure which will reduce the potential for damage to a facility from a disaster event.

(15) Individual assistance: Supplementary Federal assistance provided under the Stafford Act to individuals and families adversely affected by a major disaster or an emergency. Such assistance may be provided directly by the Federal Government or through State or local governments or disaster relief organizations. For further information, see Subparts D, E, and F of these regulations.

(16) Local government: Any county, city, village, town, district, or other political subdivision of any State; any Indian tribe or authorized tribal organization; any Alaska Native village or organization; and includes any rural community, unincorporated town or village, or other public entity for which an application for assistance is made by a State or political subdivision thereof.

(17) Major disaster: Any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

(18) Mission assignment: Work order issued to a Federal agency by the Regional Director, Associate Director, or Director, directing completion by that agency of a specified task and citing funding, other managerial controls, and guidance.

(19) Private nonprofit organization: Any nongovernmental agency or entity that currently has (i) an effective ruling letter from the U.S. Internal Revenue Service granting tax exemption under section 501 (c), (d), or (e) of the Internal Revenue Code of 1954; or (ii) satisfactory evidence from the State that the organization or entity is a nonprofit one organized or doing business under State law.

(20) Public assistance: Supplementary Federal assistance provided under the Stafford Act to State and local governments or certain private, nonprofit organizations other than assistance for the direct benefit of individuals and families. For further information, see Subparts G and H of this part. Community Disaster Loans under section 417 of the Stafford Act and Fire Suppression Grants under section 420 of the Stafford Act are also included in Public Assistance. See Subparts K and L of this part.

(21) Regional Director: A director of a regional office of FEMA, or his/her designated representative. As used in these regulations, Regional Director also means the Disaster Recovery Manager who has been appointed to exercise the authority of the Regional Director for a particular emergency or major disaster.

(22) State: Any State of the United States, the District of Columbia, Puerto

Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, or the Republic of the Marshall Islands.

(23) State Coordinating Officer (SCO): The person appointed by the Governor to act in cooperation with the Federal Coordinating Officer to administer disaster recovery efforts.

(24) State emergency plan: As used in section 401 or section 501 of the Stafford Act means that State plan which is designated specifically for State-level response to emergencies or major disasters and which sets forth actions to be taken by the State and local governments, including those for implementing Federal disaster assistance.

(25) Temporary housing: Temporary accommodations provided by the Federal Government to individuals or families whose homes are made unlivable by an emergency or a major disaster.

(26) United States: The 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, and the Northern Mariana Islands.

(27) Voluntary organization: Any chartered or otherwise duly recognized tax-exempt local, State, or national organization or group which has provided or may provide needed services to the States, local governments, or individuals in coping with an emergency or a major disaster.

(b) *Additional definitions.* Definitions which apply to individual subparts are found in those subparts.

§ 206.3 Policy.

It is the policy of FEMA to provide an orderly and continuing means of assistance by the Federal Government to State and local governments in carrying out their responsibilities to alleviate the suffering and damage that result from major disasters and emergencies by:

(a) Providing Federal assistance programs for public and private losses and needs sustained in disasters;

(b) Encouraging the development of comprehensive disaster preparedness and assistance plans, programs, capabilities, and organizations by the States and local governments;

(c) Achieving greater coordination and responsiveness of disaster preparedness and relief programs;

(d) Encouraging individuals, States, and local governments to obtain insurance coverage and thereby reduce

their dependence on governmental assistance; and

(e) Encouraging hazard mitigation measures, such as development of land-use and construction regulations, floodplain management, protection of wetlands, and environmental planning, to reduce losses from disasters.

§ 206.4 State emergency plans.

The State shall set forth in its emergency plan all responsibilities and actions specified in the Stafford Act and these regulations that are required of the State and its political subdivisions to prepare for and respond to major disasters and emergencies and to facilitate the delivery of Federal disaster assistance.

§ 206.5 Assistance by other Federal agencies.

(a) In any declared major disaster, the Associate Director or the Regional Director may direct any Federal agency to utilize its authorities and the resources granted to it under Federal law (including personnel, equipment, supplies, facilities, and managerial, technical, and advisory services) to support State and local assistance efforts.

(b) In any declared emergency, the Associate Director or the Regional Director may direct any Federal agency to utilize its authorities and the resources granted to it under Federal law (including personnel, equipment, supplies, facilities, and managerial, technical, and advisory services) to support emergency efforts by State and local governments to save lives; protect property, public health and safety; and lessen or avert the threat of a catastrophe.

(c) In any declared major disaster or emergency, the Associate Director or the Regional Director may direct any Federal agency to provide emergency assistance necessary to save lives and to protect property, public health, and safety by:

(1) Utilizing, lending, or donating to State and local governments Federal equipment, supplies, facilities, personnel, and other resources, other than the extension of credit, for use or distribution by such governments in accordance with the purposes of this Act;

(2) Distributing medicine, food, and other consumable supplies; or

(3) Performing work or services to provide emergency assistance authorized in the Stafford Act.

(d) Disaster assistance by other Federal agencies is subject to the coordination of the FCO. Federal agencies shall provide any reports or

information about disaster assistance rendered under the provisions of these regulations or authorities independent of the Stafford Act, that the FCO or Regional Director considers necessary and requests from the agencies.

(e) Assistance furnished by any Federal agency under paragraphs (a), (b), or (c) of this section is subject to the criteria provided by the Associate Director under these regulations and other instructions as the Associate Director or Regional Director may issue.

(f) Assistance under paragraphs (a), (b), or (c) of this section, when directed by the Associate Director or Regional Director, does not apply to nor shall it affect the authority of any Federal agency to provide disaster assistance independent of the Stafford Act.

(g) In carrying out the purposes of the Stafford Act, any Federal agency may accept and utilize, with the consent of the State or local government, the services, personnel, materials, and facilities of any State or local government, agency, office, or employee. Such utilization shall not make such services, materials, or facilities Federal in nature nor make the State or local government or agency an arm or agent of the Federal Government.

(h) Any Federal agency charged with the administration of a Federal assistance program may, if so requested by the applicant State or local authorities, modify or waive, for a major disaster, such administrative conditions for assistance as would otherwise prevent the giving of assistance under such programs if the inability to meet such conditions is a result of the major disaster.

§ 206.6 Donation or loan of Federal equipment and supplies.

(a) In any major disaster or emergency, the Associate Director or the Regional Director may direct Federal agencies to donate or loan their equipment and supplies to State and local governments for use and distribution by them for the purposes of the Stafford Act.

(b) A donation or loan may include equipment and supplies determined under applicable laws and regulations to be surplus to the needs and responsibilities of the Federal Government. The State shall certify that the surplus property is usable and necessary for current disaster purposes in order to receive a donation or loan. Such a donation or loan is made in accordance with procedures prescribed by the General Services Administration.

§ 206.7 Implementation of assistance from other Federal agencies.

All directives, known as mission assignments, to other Federal agencies shall be in writing, or shall be confirmed in writing if made orally, and shall identify the specific task to be performed and the requirements or criteria to be followed. If the Federal agency is to be reimbursed, the letter will also contain a dollar amount which is not to be exceeded in accomplishing the task without prior approval of the issuing official.

§ 206.8 Reimbursement of other Federal agencies.

(a) Assistance furnished under § 206.5 (a) or (b) of this subpart may be provided with or without compensation as considered appropriate by the Associate Director or Regional Director.

(b) The Associate Director or the Regional Director may not approve reimbursement of costs incurred while performing work pursuant to disaster assistance authorities independent of the Stafford Act.

(c) *Expenditures eligible for reimbursement.* The Associate Director or the Regional Director may approve reimbursement of the following costs which are incurred in providing requested assistance.

(1) Overtime, travel, and per diem of permanent Federal agency personnel.

(2) Wages, travel, and per diem of temporary Federal agency personnel assigned solely to performance of services directed by the Associate Director or the Regional Director in the major disaster or emergency area designated by the Regional Director.

(3) Travel and per diem of Federal military personnel assigned solely to the performance of services directed by the Associate Director or the Regional Director in the major disaster or emergency area designated by the Regional Director.

(4) Cost of work, services, and materials procured under contract for the purposes of providing assistance directed by the Associate Director or the Regional Director.

(5) Cost of materials, equipment, and supplies (including transportation, repair, and maintenance) from regular stocks used in providing directed assistance.

(6) All costs incurred which are paid from trust, revolving, or other funds, and whose reimbursement is required by law.

(7) Other costs submitted by an agency with written justification or otherwise agreed to in writing by the

Associate Director or the Regional Director and the agency.

(d) *Procedures for reimbursement.* Federal agencies performing work under a mission assignment will submit requests for reimbursement, as follows:

(1) Federal agencies may submit requests for reimbursement of amounts greater than \$1,000 at any time. Requests for lesser amounts may be submitted only quarterly. An agency shall submit a final accounting of expenditures after completion of the agency's work under each directive for assistance. The time limit and method for submission of reimbursement requests will be stipulated in the mission assignment letter.

(2) An agency shall document its request for reimbursement with specific details on personnel services, travel, and all other expenses by object class as specified in OMB Circular A-12 and by any subobject class used in the agency's accounting system. Where contracts constitute a significant portion of the billings, the agency shall provide a listing of individual contracts and their associated costs.

(3) Reimbursement requests shall cite the specific mission assignment under which the work was performed, and the major disaster or emergency identification number. Requests for reimbursement of costs incurred under more than one mission assignment may not be combined for billing purposes.

(4) Unless otherwise agreed, an agency shall direct all requests for reimbursement to the Regional Director of the region in which the costs were incurred.

(5) A Federal agency requesting reimbursement shall retain all financial records, supporting documents, statistical records, and other records pertinent to the provision of services or use of resources by that agency. These materials shall be accessible to duly authorized representatives of FEMA and the U.S. Comptroller General, for the purpose of making audits, excerpts, and transcripts, for a period of 3 years starting from the date of submission of the final billing.

§ 206.9 Nonliability.

The Federal Government shall not be liable for any claim based upon the exercise or performance of, or the failure to exercise or perform a discretionary function or duty on the part of a Federal agency or an employee of the Federal Government in carrying out the provisions of the Stafford Act.

§ 206.10 Use of local firms and individuals.

In the expenditure of Federal funds for debris removal, distribution of supplies,

reconstruction, and other major disaster or emergency assistance activities which may be carried out by contract or agreement with private organizations, firms, or individuals, preference shall be given, to the extent feasible and practicable, to those organizations, firms, and individuals residing or doing business primarily in the area affected by such major disaster or emergency. This shall not be considered to restrict the use of Department of Defense resources in the provision of major disaster assistance under the Stafford Act.

§ 206.11 Nondiscrimination in disaster assistance.

(a) Federal financial assistance to the States or their political subdivisions is conditioned on full compliance with 44 CFR Part 7, Nondiscrimination in Federally-Assisted Programs.

(b) All personnel carrying out Federal major disaster or emergency assistance functions, including the distribution of supplies, the processing of the applications, and other relief and assistance activities, shall perform their work in an equitable and impartial manner, without discrimination on the grounds of race, color, religion, nationality, sex, age, or economic status.

(c) As a condition of participation in the distribution of assistance or supplies under the Stafford Act, or of receiving assistance under the Stafford Act, government bodies, and other organizations shall provide a written assurance of their intent to comply with regulations relating to nondiscrimination.

(d) The agency shall make available to employees, applicants, participants, beneficiaries, and other interested parties such information regarding the provisions of this regulation and its applicability to the programs or activities conducted by the agency, and make such information available to them in such manner as the head of the agency finds necessary to apprise such persons of the protections against discrimination assured them by the Act and this regulation.

§ 206.12 Use and coordination of relief organizations.

(a) In providing relief and assistance under the Stafford Act, the FCO or Regional Director may utilize, with their consent, the personnel and facilities of the American National Red Cross, the Salvation Army, the Mennonite Disaster Service, and other voluntary organizations in the distribution of medicine, food, supplies, or other items, and in the restoration, rehabilitation, or reconstruction of community services

and essential facilities, whenever the FCO or Regional Director finds that such utilization is necessary.

(b) The Associate Director is authorized to enter into agreements with the American Red Cross, the Salvation Army, the Mennonite Disaster Service, and other voluntary organizations engaged in providing relief during and after a major disaster or emergency. Any agreement shall include provisions assuring that use of Federal facilities, supplies, and services will be in compliance with § 206.11, Nondiscrimination in Disaster Assistance, and § 206.191, Duplication of Benefits, of these regulations and such other regulations as the Associate Director may issue. The FCO may coordinate the disaster relief activities of the voluntary organizations which agree to operate under his/her direction.

(c) Nothing contained in this section shall be construed to limit or in any way affect the responsibilities of the American National Red Cross as stated in Pub. L. 58-4.

§ 206.13 Standards and reviews.

(a) The Associate Director shall establish program standards and assess the efficiency and effectiveness of programs administered under the Stafford Act by conducting annual reviews of the activities of Federal agencies and State and local governments involved in major disaster or emergency response efforts.

(b) In carrying out this provision, the Associate Director or Regional Director may direct Federal agencies to submit reports relating to their disaster assistance activities. The Associate Director or the Regional Director may request similar reports from the States relating to these activities on the part of State and local governments. Additionally, the Associate Director or Regional Director may conduct independent investigations, studies, and evaluations as necessary to complete the reviews.

§ 206.14 Criminal and civil penalties.

(a) *Misuse of funds.* Any person who knowingly misapplies the proceeds of a loan or other cash benefit obtained under this Act shall be fined an amount equal to one and one-half times the misapplied amount of the proceeds or cash benefit.

(b) *Civil enforcement.* Whenever it appears that any person has violated or is about to violate any provision of this Act, including any civil penalty imposed under this Act, the Attorney General may bring a civil action for such relief as may be appropriate. Such action may be

brought in an appropriate United States district court.

(c) *Referral to the Attorney General.* The Associate Director shall expeditiously refer to the Attorney General for appropriate action any evidence developed in the performance of functions under this Act that may warrant consideration for criminal prosecution.

(d) *Civil penalty.* Any individual who knowingly violates any order or regulation issued under this Act shall be subject to a civil penalty of not more than \$5,000 for each violation.

§ 206.15 Recovery of assistance.

(a) *Party liable.* Any person who intentionally causes a condition for which Federal assistance is provided under this Act or under any other Federal law as a result of a declaration of a major disaster or emergency under this Act shall be liable to the United States for the reasonable costs incurred by the United States in responding to such disaster or emergency to the extent that such costs are attributable to the intentional act or omission of such person which caused such condition. Such action shall be brought in an appropriate United States District Court.

(b) *Rendering of care.* A person shall not be liable under this section for costs incurred by the United States as a result of actions taken or omitted by such person in the course of rendering care or assistance in response to a major disaster or emergency.

§ 206.16 Audits and investigations.

(a) Subject to the provisions of Chapter 75 of Title 31, United States Code, and 44 CFR Part 14, relating to requirements for single audits, the Associate Director or Regional Director shall conduct audits and investigations as necessary to assure compliance with the Stafford Act, and in connection therewith may question such persons as may be necessary to carry out such audits and investigations.

(b) For purposes of audits and investigations under this section, FEMA or State auditors, the Governor's Authorized Representative, the Regional Director, the Associate Director, and the Comptroller General of the United States, or their duly authorized representatives, may inspect any books, documents, papers, and records of any person relating to any activity undertaken or funded under the Stafford Act.

§ 206.17 Emergency mass care.

Emergency mass care, such as emergency medical care, emergency shelter, emergency provision of food,

water and medicine, and other essential needs, are normally provided by the Red Cross or other voluntary organizations and Federal emergency assistance will be approved by the Regional Director only upon an affirmative showing that such organizations are not providing all or part of emergency mass care essential needs.

§ 206.18 Payments to states.

All payments to States for assistance authorized under the Act will be made no later than 60 days after approval of final claims.

§ 206.19 Effective date.

These regulations are effective for all major disasters or emergencies declared on or after November 23, 1988.

§§ 206.20-206.30 [Reserved]

Subpart B—The Declaration Process

§ 206.31 Purpose.

The purpose of this subpart is to describe the process leading to a Presidential declaration of a major disaster or an emergency and the actions triggered by such a declaration.

§ 206.32 Definitions.

All definitions in the Stafford Act and in § 206.2 apply. In addition, the following definitions apply:

(a) *Appeal:* A request for reconsideration of a determination on any action related to Federal assistance under the Stafford Act and these regulations. Specific procedures for appeals are contained in the relevant subparts of these regulations.

(b) *Commitment:* A certification by the Governor that the State and local governments will expend a reasonable amount of funds to alleviate the effects of the major disaster or emergency, for which no Federal reimbursement will be requested.

(c) *Disaster Application Center:* A center established in a centralized location within the disaster area for individuals, families, or businesses to apply for disaster aid.

(d) *FEMA-State Agreement:* A formal legal document stating the understandings, commitments, and binding conditions for assistance applicable as the result of the major disaster or emergency declared by the President.

(e) *Incident:* Any condition which meets the definition of major disaster or emergency as set forth in § 206.2 which causes damage or hardship that may result in a Presidential declaration of a major disaster or an emergency.

(f) *Incident period:* The time interval during which the disaster-causing

incident occurs. No Federal assistance under the Act shall be approved unless the damage or hardship to be alleviated resulted from the disaster-causing incident which took place during the incident period or was in anticipation of that incident. The incident period will be established by FEMA in the FEMA-State Agreement and published in the Federal Register.

§ 206.33 Preliminary damage assessment.

The preliminary damage assessment (PDA) process is a mechanism used to determine the impact and magnitude of damage and the resulting unmet needs of individuals, businesses, the public sector, and the community as a whole. Information collected is used by the State as a basis for the Governor's request, and by FEMA to document the recommendation made to the President in response to the Governor's request. It is in the best interest of all parties to combine State and Federal personnel resources by performing a joint PDA prior to the initiation of a Governor's request, as follows.

(a) *Preassessment by the State.* When an incident occurs, or is imminent, which the State official responsible for disaster operations determines may be beyond the State and local government capabilities to respond, the State will request the Regional Director to perform a joint FEMA-State preliminary damage assessment. It is not anticipated that all occurrences will result in the requirement for assistance; therefore, the State will be expected to verify their initial information, in some manner, before requesting this support.

(b) *Damage assessment teams.* Damage assessment teams will be composed of at least one representative of the Federal Government and one representative of the State. Representatives from local governments, other State and Federal agencies, and voluntary relief organizations may also be asked to participate, as needed. A FEMA official will brief team members on damage criteria, the kind of information to be collected for the particular incident, and reporting requirements.

(c) *Review of findings.* At the close of the PDA, FEMA will consult with State officials to discuss findings and reconcile any differences.

(d) *Exceptions.* The requirement for a joint PDA may be waived for those incidents of unusual severity and magnitude that do not require field damage assessments to determine the need for supplemental Federal assistance under the Act, or in such other instances determined by the

Regional Director upon consultation with the State. It may be necessary, however, to conduct an assessment to determine unmet needs for managerial response purposes.

§ 206.34 Request for utilization of Department of Defense (DOD) resources.

(a) *General.* During the immediate aftermath of an incident which may ultimately qualify for a Presidential declaration of a major disaster or emergency, when imminent threats to life and property are present which cannot be effectively dealt with by the State or local governments, the Associate Director may direct DOD to utilize DOD personnel and equipment for removal of debris and wreckage and temporary restoration of essential public facilities and services.

(b) *Request process.* The Governor of a State, or the Acting Governor in his/her absence, may request such DOD assistance. The Governor should submit the request to the Associate Director through the appropriate Regional Director to ensure prompt acknowledgment and processing. The request must be submitted within 48 hours of the occurrence of the incident. The request shall include:

- (1) Information describing the types and amount of DOD emergency assistance being requested;
- (2) Confirmation that the Governor has taken appropriate action under State law and directed the execution of the State emergency plan;
- (3) A finding that the situation is of such severity and magnitude that effective response is beyond the capabilities of the State and affected local governments and that Federal assistance is necessary for the preservation of life and property;

(4) A certification by the Governor that the State and local government will reimburse FEMA for the non-Federal share of the cost of such work; and

(5) An agreement:

- (i) To provide all lands, easements and rights-of-way necessary to accomplish the approved work without cost to the United States;
- (ii) To hold and save the United States free from damages due to the requested work, and to indemnify the Federal Government against any claims arising from such work; and
- (iii) To assist DOD in all support and local jurisdictional matters.

(c) *Processing the request.* Upon receipt of the request, the Regional Director shall gather adequate information to support a recommendation and forward it to the Associate Director. If the Associate Director determines that such work is

essential to save lives and protect property, he/she will issue a mission assignment to DOD authorizing direct Federal assistance to the extent deemed appropriate.

(d) *Implementation of assistance.* The performance of emergency work may not exceed a period of 10 days from the date of the mission assignment.

(e) *Limits.* Generally, no work shall be approved under this section which falls within the statutory authority of DOD or another Federal agency.

(f) *Federal share.* The Federal share of assistance under this section shall be not less than 75 percent of the cost of eligible work.

(g) *Project management.* DOD shall ensure that the work is completed in accordance with the approved scope of work, costs, and time limitations in the mission assignment. DOD shall also keep the Regional Director and the State advised of work progress and other project developments. It is the responsibility of DOD to ensure compliance with applicable Federal, State and local legal requirements. A final report will be submitted to the Regional Director upon termination of all direct Federal assistance work. Final reports shall be signed by a representative of DOD and the State. Once the final eligible cost is determined, DOD will request reimbursement from FEMA and FEMA will submit a bill to the State for the non-Federal share of the mission assignment.

(h) *Reimbursement of DOD.* Reimbursement will be made in accordance with § 206.8 of these regulations.

§ 206.35 Requests for Emergency Declarations.

(a) When an incident occurs or threatens to occur in a State, which would not qualify under the definition of a major disaster, the Governor of a State, or the Acting Governor in his/her absence, may request that the President declare an emergency. The Governor should submit the request to the President through the appropriate Regional Director to ensure prompt acknowledgment and processing. The request must be submitted within 5 days of the occurrence of the incident in order to be considered. The 5-day period may be extended by the Associate Director provided that a written request for such extension is made by the Governor, or Acting Governor, during the 5-day period immediately following the incident. The extension request must stipulate the reason for the delay.

(b) The basis for the Governor's request must be the finding that the situation:

(1) Is of such severity and magnitude that effective response is beyond the capability of the State and the affected local government(s); and

(2) Requires supplementary Federal emergency assistance to save lives and to protect property, public health and safety, or to lessen or avert the threat of a disaster.

(c) In addition to the above findings, the complete request shall include:

(1) Confirmation that the Governor has taken appropriate action under State law and directed the execution of the State emergency plan;

(2) Information describing the State and local efforts and resources which have been or will be used to alleviate the emergency, including those for which no Federal funding will be requested;

(3) Information describing other Federal agency efforts and resources which have been or will be used in responding to this incident;

(4) Identification of the type and extent of additional Federal aid required; and

(5) Certification by the Governor that, for the current emergency, the State and local governments will assume the non-Federal share of costs required by the Stafford Act.

(d) *Modified declaration for Federal emergencies.* The requirement for a Governor's request under paragraph (a) of this section can be waived when an emergency exists for which the primary responsibility rests in the Federal government because the emergency involves a subject area for which, under the Constitution or laws of the United States, the Federal government exercises exclusive or preeminent responsibility and authority. Any recommendation for a Presidential declaration of emergency in the absence of a Governor's request must be initiated by the Regional Director or transmitted through the Regional Director by another Federal agency. In determining that such an emergency exists, the Associate Director or Regional Director shall consult the Governor of the affected State, if practicable.

(e) *Other authorities.* It is not intended for an emergency declaration to preempt other Federal agency authorities and/or established plans and response mechanisms in place prior to the enactment of the Stafford Act.

§ 206.36 Requests for major disaster declarations.

(a) When a catastrophe occurs in a State, the Governor of a State, or the Acting Governor in his/her absence, may request a major disaster declaration. The Governor should submit the request to the President through the appropriate Regional Director to ensure prompt acknowledgment and processing. The request must be submitted within 30 days of the occurrence of the incident in order to be considered. The 30-day period may be extended by the Associate Director, provided that a written request for an extension is submitted by the Governor, or Acting Governor, during this 30-day period. The extension request will stipulate reasons for the delay.

(b) The basis for the request shall be a finding that:

(1) The situation is of such severity and magnitude that effective response is beyond the capabilities of the State and affected local governments; and

(2) Federal assistance under the Act is necessary to supplement the efforts and available resources of the State, local governments, disaster relief organizations, and compensation by insurance for disaster-related losses.

(c) In addition to the above findings, the completed request shall include:

(1) Confirmation that the Governor has taken appropriate action under State law and directed the execution of the State emergency plan;

(2) An estimate of the amount and severity of damages and losses stating the impact of the disaster on the public and private sector;

(3) Information describing the nature and amount of State and local resources which have or will be committed to alleviate the results of the disaster, stating specifically those activities for which no Federal funding will be requested;

(4) Preliminary estimates of the types and amounts of supplementary Federal disaster assistance needed under the Stafford Act; and

(5) Certification by the Governor that State and local government obligations and expenditures for the current disaster will comply with all applicable cost sharing requirements of the Stafford Act, or constitute the expenditure of a reasonable amount of funds for alleviating the damage, loss, hardship or suffering resulting from such disaster. The cost sharing provisions of the legislation will satisfy the commitment requirements. However, in disasters which do not involve programs with cost sharing provisions, additional commitments will be required.

(d) For those catastrophes of unusual severity and magnitude when field damage assessments are not necessary to determine the requirement for supplemental Federal assistance, the Governor or Acting Governor may send an abbreviated written request through the Regional Director for a declaration of a major disaster. This may be transmitted in the most expeditious manner available.

In the event the FEMA Regional Office is severely impacted by the catastrophe, the request may be addressed to the Director of FEMA. The request must indicate a finding in accordance with § 206.36(b), and must include as a minimum the information requested by § 206.36(c) (1), (3), and (5). Upon receipt of the request, FEMA shall expedite the processing of reports and recommendations to the President. Notification to the Governor of the Presidential declaration shall be in accordance with 44 CFR 206.39. The Associate Director shall assure that documentation of the declaration is later assembled to comply fully with these regulations.

§ 206.37 Processing requests for declarations of a major disaster or emergency.

(a) *Acknowledgement.* The Regional Director shall provide written acknowledgement of the Governor's request.

(b) *Regional summary.* Based on information obtained by FEMA/State preliminary damage assessments of the affected area(s) and consultations with appropriate State and Federal officials and other interested parties, the Regional Director shall promptly prepare a summary of the PDA findings. The data will be analyzed and submitted with a recommendation to the Associate Director. The Regional Analysis shall include a discussion of State and local resources and capabilities, and other assistance available to meet the major disaster or emergency-related needs.

(c) *FEMA recommendation.* Based on all available information, the Director shall formulate a recommendation which shall be forwarded to the President with the Governor's request.

(1) *Major disaster recommendation.* The recommendation will be based on a finding that the situation is or is not of such severity and magnitude as to be beyond the capabilities of the State and its local governments. It will also contain a determination of whether or not supplemental Federal assistance under the Stafford Act is necessary and appropriate. In developing a recommendation, FEMA will consider

such factors as the amount and type of damages; the impact of damages on affected individuals, the State, and local governments; the available resources of the State and local governments, and other disaster relief organizations; the extent and type of insurance in effect to cover losses; assistance available from other federal programs and other sources; imminent threats to public health and safety; recent disaster history in the State; hazard mitigation measures taken by the State or local governments, especially implementation of measures required as a result of previous major disaster declarations; and other factors pertinent to a given incident. Any mathematic formula used to evaluate these factors will be used as indicators only, and not the sole basis for determining whether or not assistance will be provided.

(2) *Emergency recommendation.* The recommendation will be based on a report which will indicate whether or not Federal emergency assistance under Sec. 502 of the Stafford Act is necessary to supplement State and local efforts to save lives, protect property and public health and safety, or to lessen or avert the threat of a catastrophe. Only after it has been determined that all other resources and authorities available to meet the crisis are inadequate, and that assistance provided in Sec. 502 of the Stafford Act would be appropriate, will FEMA recommend an emergency declaration to the President.

(d) *Modified Federal emergency recommendation.* The recommendation will be based on a report which will indicate that an emergency does or does not exist for which assistance under Sec. 502 of the Stafford Act would be appropriate. An emergency declaration will not be recommended in situations where the authority to respond or coordinate is within the jurisdiction of one of more Federal agencies without a Presidential declaration.

§ 206.38 Presidential determination.

(a) The Governor's request for a major disaster declaration may result in either a Presidential declaration of a major disaster or an emergency, or denial of the Governor's request.

(b) The Governor's request for an emergency declaration may result only in a Presidential declaration of an emergency, or denial of the Governor's request.

§ 206.39 Notification.

(a) The Governor will be promptly notified by the Director or his/her designee of a declaration by the President that an emergency or a major

disaster exists. FEMA also will notify other Federal agencies and other interested parties.

(b) The Governor will be promptly notified by the Director or his/her designee of a determination that the Governor's request does not justify the use of the authorities of the Stafford Act.

(c) Following a major disaster or emergency declaration, the Regional Director or Associate Director will promptly notify the Governor of the designations of assistance and areas eligible for such assistance.

§ 206.40 Designation of affected areas and eligible assistance.

(a) *Eligible assistance.* After a declaration by the President, the Associate Director shall determine and designate the types of assistance to be made available. The Associate Director may, at his/her discretion, or as directed by the President in the declaration letter, authorize all, or only particular types of, supplementary Federal assistance. Determinations by the Associate Director of the types and extent of FEMA disaster assistance to be provided are based upon findings whether, in any given area, the damage involved and its effects are of such severity and magnitude as to be beyond the response capabilities of the State, the affected local governments, and other potential recipients of supplementary Federal assistance.

(b) *Areas eligible to receive assistance.* The Associate Director shall also designate the disaster-affected areas eligible for supplementary Federal assistance under the Stafford Act, and these designations shall be published in the *Federal Register*. A disaster-affected area designated by the Associate Director includes all local government jurisdictions within its boundaries. The Associate Director may, at his/her discretion, designate all or only some of the areas requested by the Governor as eligible for supplementary Federal assistance.

(c) *Requests for additional designations after a declaration.* After a declaration by the President, the Governor, or the GAR, may request that additional areas or types of supplementary Federal assistance be authorized by the Associate Director. Such requests shall be accompanied by appropriate verified assessments and commitments by State and local governments to demonstrate that the requested designations are justified and that the unmet needs are beyond State and local capabilities without supplementary Federal assistance.

(d) *Time limits to request.* All supplemental requests under paragraph

(c) of this section must be submitted within 30 days after the incident in order to be considered. The 30-day period may be extended by the Associate Director provided that a written request is made by the appropriate State official during this 30-day period. The request must include justification of the State's inability to meet the deadline.

§ 206.41 Appointment of disaster officials.

(a) *Federal Coordinating Officer.* Upon a declaration of a major disaster or of an emergency by the President, the Director, or in his absence, the Deputy Director, or alternately, the Associate Director shall appoint an FCO who shall initiate action immediately to assure that Federal assistance is provided in accordance with the declaration, applicable laws, regulations, and the FEMA-State Agreement.

(b) *Disaster Recovery Manager.* The Regional Director shall designate a DRM to exercise all the authority of the Regional Director in a major disaster or an emergency.

(c) *State Coordinating Officer.* Upon a declaration of a major disaster or of an emergency, the Governor of the affected State shall designate a SCO who shall coordinate State and local disaster assistance efforts with those of the Federal Government.

(d) *Governor's Authorized Representative.* In the FEMA-State Agreement, the Governor shall designate the GAR, who shall administer Federal disaster assistance programs on behalf of the State and local governments and other grant or loan recipients. The GAR is responsible for the State compliance with the FEMA-State Agreement.

§ 206.42 Responsibilities of coordinating officers.

(a) Following a declaration of a major disaster or an emergency, the FCO shall:

(1) Make an initial appraisal of the types of assistance most urgently needed;

(2) In coordination with the SCO, establish field offices and Disaster Application Centers as necessary to coordinate and monitor assistance programs, disseminate information, accept applications, and counsel individuals, families and businesses concerning available assistance;

(3) Coordinate the administration of relief, including activities of State and local governments, activities of Federal agencies, and those of the American Red Cross, the Salvation Army, the Mennonite Disaster Service, and other voluntary relief organizations which agree to operate under the FCO's advice and direction;

(4) Undertake appropriate action to make certain that all of the Federal agencies are carrying out their appropriate disaster assistance roles under their own legislative authorities and operational policies; and

(5) Take other action, consistent with the provisions of the Stafford Act, as necessary to assist citizens and public officials in promptly obtaining assistance to which they are entitled.

(b) The SCO coordinates State and local disaster assistance efforts with those of the Federal Government working closely with the FCO. The SCO is the principal point of contact regarding coordination of State and local disaster relief activities, and implementation of the State emergency plan. The functions, responsibilities, and authorities of the SCO are set forth in the State emergency plan.

§ 206.43 Emergency support teams.

The Federal Coordinating Officer may activate emergency support teams, composed of Federal program and support personnel, to be deployed into an area affected by a major disaster or emergency. These emergency support teams assist the FCO in carrying out his/her responsibilities under the Stafford Act and these regulations. Any Federal agency can be directed to detail personnel within the agency's administrative jurisdiction to temporary duty with the FCO. Each detail shall be without loss of seniority, pay, or other employee status.

§ 206.44 FEMA-State agreements.

(a) *General.* Upon the declaration of a major disaster or an emergency, the Governor, acting for the State, and the FEMA Regional Director or his/her designee, acting for the Federal Government, shall execute a FEMA-State Agreement. The FEMA-State Agreement states the understandings, commitments, and conditions for assistance under which FEMA disaster assistance shall be provided. This Agreement imposes binding obligations on FEMA, States, their local governments, and private nonprofit organizations within the States in the form of conditions for assistance which are legally enforceable. No FEMA funding will be authorized or provided to any grantees or other recipients, nor will direct Federal assistance be authorized by mission assignments, until such time as this Agreement for the Presidential declaration has been signed, except where it is deemed necessary by the Regional Director to begin the process of providing essential

emergency services or temporary housing.

(b) *Terms and conditions.* This Agreement describes the incident and the incident period for which assistance will be made available, the type and extent of the Federal assistance to be made available, and contains the commitment of the State and local government(s) with respect to the amount of funds to be expended in alleviating damage and suffering caused by the major disaster or emergency. The Agreement also contains such other terms and conditions consistent with the declaration and the provisions of applicable laws, Executive Orders and regulations.

(c) *Provisions for modification.* In the event that the conditions stipulated in the original Agreement are changed or modified, such changes will be reflected in properly executed amendments to the Agreement, which may be signed by the GAR and the Regional Director or his/her designee for the specified major disaster or emergency. Amendments most often occur to close or amend the incident period, to add forms of assistance not originally authorized, or to designate additional areas eligible for assistance.

(d) In a modified declaration for a Federal emergency, a FEMA-State Agreement may or may not be required based on the type of assistance being provided.

§ 206.45 Loan of non-Federal share.

(a) *Conditions for making loans.* At the request of the Governor, the Associate Director may lend or advance to a State, either for its own use or for the use of public or private nonprofit applicants for disaster assistance under the Stafford Act, the portion of assistance for which the State or other eligible disaster assistance applicant is responsible under the cost-sharing provisions of the Stafford Act in any case in which:

(1) The State or other eligible disaster assistance applicant is unable to assume their financial responsibility under such cost sharing provisions;

(i) As a result of concurrent, multiple major disasters in a jurisdiction, or

(ii) After incurring extraordinary costs as a result of a particular disaster;

(2) The damages caused by such disasters or disaster are so overwhelming and severe that it is not possible for the State or other eligible disaster assistance applicant to immediately assume their financial responsibility under the Act; and

(3) The State and the other eligible disaster applicants are not delinquent in payment of any debts to FEMA incurred

as a result of Presidentially declared major disasters or emergencies.

(b) *Repayment of loans.* Any loan made to a State under paragraph (a) of this section must be repaid to the United States. The Governor must include a repayment schedule as part of the request for advance.

(1) The State shall repay the loan (the principal disbursed plus interest) in accordance with the repayment schedule approved by the Associate Director.

(2) If the State fails to make payments in accordance with the approved repayment schedule, FEMA will offset delinquent amounts against the current, prior, or any subsequent disasters, or monies due the State under other FEMA programs, in accordance with the established Claims Collection procedures.

(c) *Interest.* Loans or advances under paragraph (a) of this section shall bear interest at a rate determined by the Secretary of the Treasury, taking into consideration the current market yields on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the reimbursement period of the loan or advance. Simple interest will be computed from the date of the disbursement of each drawdown of the loan/advance by the State based on 365 days/year.

§ 206.46 Appeals.

(a) *Denial of declaration request.* When a request for a major disaster declaration or for an emergency declaration is denied, the Governor may appeal the decision. An appeal must be made within 30 days after the date of the letter denying the request. This one-time request for reconsideration, along with appropriate additional information, is submitted to the President through the appropriate Regional Director. The processing of this request is similar to the initial request.

(b) *Denial of types of assistance or areas.* In those instances where the type of assistance or certain areas requested by the Governor are not designated or authorized, the Governor, or the GAR, may appeal the decision. An appeal must be submitted in writing within 30 days of the date of the letter denying the request. This one-time request for reconsideration, along with justification and/or additional information, is sent to the Associate Director through the appropriate Regional Director.

(c) *Denial of advance of non-Federal share.* In those instances where the Governor's request for an advance is denied, the Governor may appeal the decision. An appeal must be submitted

in writing within 30 days of the date of the letter denying the request. This one-time request for reconsideration, along with justification and/or additional information, is sent to the Associate Director through the appropriate Regional Director.

(d) *Extension of time to appeal.* The 30-day period referred to in paragraphs (a), (b), or (c) of this section may be extended by the Associate Director provided that a written request for such an extension, citing reasons for the delay, is made by the appropriate State official during this 30-day period, and if the Associate Director agrees that there is a legitimate basis for extension of the 30-day period.

§§ 206.47-206.60 [Reserved]

Subpart C—Emergency Assistance

§ 206.61 Purpose.

The purpose of this subpart is to identify the forms of assistance which may be made available under an emergency declaration.

§ 206.62 Available assistance.

In any emergency declaration, the Associate Director or Regional Director may provide assistance, as follows:

(a) Direct any Federal agency, with or without reimbursement, to utilize its authorities and the resources granted to it under Federal law (including personnel, equipment, supplies, facilities, and managerial, technical and advisory services) in support of State and local emergency assistance efforts to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe;

(b) Provide technical and advisory assistance to affected State and local governments for:

(1) The performance of essential community services;

(2) Issuance of warnings of risks or hazards;

(3) Public health and safety information, including dissemination of such information;

(4) Provision of health and safety measures; and

(5) Management, control, and reduction of immediate threats to public health and safety;

(c) Provide emergency assistance under the Stafford Act through Federal agencies;

(d) Remove debris in accordance with the terms and conditions of section 407 of the Stafford Act;

(e) Provide temporary housing assistance in accordance with the terms and conditions of section 408 of the Stafford Act;

(f) Assist State and local governments in the distribution of medicine, food, and other consumable supplies, and emergency assistance; and

(g) Make contributions to affected State and local governments for the purpose of accomplishing essential emergency work.

§ 206.63 Provision of assistance.

(a) Assistance authorized by an emergency declaration is limited to essential work and services to save lives, to protect property and public health and safety, or to lessen or avert the threat of a catastrophe. No assistance will be authorized that has the effect of long-term recovery or permanent restoration.

(b) Only when assistance under § 206.62 (a) and (b) is inadequate, may the Associate Director or the Regional Director provide assistance in accordance with § 206.62 (c) through (g).

§ 206.64 Coordination of assistance.

After an emergency declaration by the President, all Federal agencies, voluntary organizations, and State and local governments providing assistance shall operate under the coordination of the Federal Coordinating Officer.

§ 206.65 Cost sharing.

The Federal share for assistance provided under this title shall not be less than 75 percent of the eligible costs.

§ 206.66 Limitation on expenditures.

Total assistance provided in any given emergency declaration may not exceed \$5,000,000, except when it is determined by the Associate Director that:

(a) Continued emergency assistance is immediately required;

(b) There is a continuing and immediate risk to lives, property, public health and safety; and

(c) Necessary assistance will not otherwise be provided on a timely basis.

§ 206.67 Requirement when limitation is exceeded.

Whenever the limitation described in § 206.66 is exceeded, the Director must report to the Congress on the nature and extent of emergency assistance requirements and shall propose additional legislation if necessary.

§§ 206.68-206.100 [Reserved]

Dated: May 12, 1989.

Grant C. Peterson,

Associate Director, State and Local Programs and Support.

[FR Doc. 89-11989 Filed 5-19-89; 8:45 am]

BILLING CODE 6718-02-M

FEDERAL EMERGENCY MANAGEMENT AGENCY

44 CFR Part 206

RIN 3067-AB37

Disaster Assistance; Robert T. Stafford Disaster Relief and Emergency Assistance Act; Implementation

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Interim rule with request for comments.

SUMMARY: President Reagan signed the Disaster Relief and Emergency Assistance Amendments of 1988 (Pub. L. 100-707) on November 23, 1988. This law amended the Disaster Relief Act of 1974, Pub. L. 93-288, and retitled it the Robert T. Stafford Disaster Relief and Emergency Assistance Act. FEMA is today publishing Subpart N of new 44 CFR Part 206 to implement the Stafford Act. On March 21, 1989, at 54 FR 11610, FEMA published a document containing Subparts D, E, F, G, H, I, J, K, L, and M. Subparts A, B, and C are published elsewhere in this Part III in today's Federal Register. FEMA is publishing interim (effective) rather than proposed rules because amendments to the Disaster Relief Act were effective immediately upon enactment. FEMA also published new Part 207, Great Lakes States Planning Assistance, as an interim rule to implement Title II of Pub. L. 100-707, on April 21, 1989 (54 FR 16108). Subpart N published here will govern disasters or emergencies declared by the President on or after November 23, 1988. Existing regulations at 44 CFR Part 205 will remain in effect to govern those major disasters and emergencies declared prior to enactment of the amendments.

DATES: The interim rules covering Subpart N will be effective on May 22, 1989. Comments from the public are encouraged, and will be accepted until July 21, 1989.

ADDRESS: Send written comments to the Rules Docket Clerk, Office of the General Counsel, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

FOR FURTHER INFORMATION CONTACT: Robert G. Chappell, Assistant Associate Director, Disaster Assistance Programs, State and Local Programs and Support, 500 C Street SW., Washington, DC 20472, (202) 646-3615, or contact the program officer for Subpart N listed at the end of the "Supplementary Information."

SUPPLEMENTARY INFORMATION: Section 404 of the Stafford Act establishes for the first time an independent hazard mitigation grant program to be used to fund State and local post-disaster mitigation measures. This grant program is one of many programs and activities that in combination help form an overall pre- and post-disaster mitigation strategy for a State or local unit of government. It is closely tied to the post-disaster mitigation plans required under section 409 of the Stafford Act, which form the basis for identifying measures to be funded under section 404. Other existing hazard mitigation plans or programs in the disaster area are also useful in identifying mitigation measures to be funded under section 404. Mitigation recommendations of the Interagency Hazard Mitigation Teams and the Hazard Mitigation Survey Teams, which are part of the post-disaster process, assist in early identification of measures to be funded under section 404. These and other mitigation plans, programs, and activities within the disaster area should be coordinated so that the Hazard Mitigation Grant Program can be used in the most effective manner possible to reduce the potential for future losses from natural disasters within the disaster area.

In the past, mitigation has been encouraged in a number of ways. First, prior to the enactment of Pub. L. 100-707, section 406 of the Disaster Relief Act of 1974 required State and local governments to evaluate the hazards in the disaster area and take steps to mitigate these hazards. (Section 406 was renumbered in its entirety as section 409 of the Stafford Act pursuant to Pub. L. 100-707.) Section 406 regulations at 44 CFR Part 205 Subpart M required State and local governments to prepare and implement hazard mitigation plans as a condition of receiving Federal disaster assistance. (After passage of the Stafford Act, 44 CFR Part 205 Subpart M was reissued without change at 44 CFR Part 206 Subpart M for use in disasters declared after the effective date of Pub. L. 100-707, i.e., November 23, 1988.) These plans are due to FEMA 180 days after the declaration. The objective of these plans is to encourage the State and local governments to conduct a systematic assessment of their mitigation capabilities and to develop a long term comprehensive plan or strategy to limit vulnerability to hazards.

Hazard evaluation, as it pertains to sections 404 and 409 of the Stafford Act, means an evaluation of State or local vulnerability to natural hazards, rather than hazardous materials, radiological

hazards, or other types of technological hazards, unless these hazards are a part of the major disaster under which section 404 funds are made available and are a part of the section 409 mitigation plan. A key part of the planning process is the Federal/State/local hazard mitigation survey teams which identify immediate mitigation opportunities and long range issues to be addressed in the section 409 plan. These survey teams are critical in the early identification of mitigation measures to be funded under section 404. The mitigation planning requirement under section 409 of the Stafford Act is particularly important to the Hazard Mitigation Grant Program because all measures identified for funding under section 404 must be consistent with and a part of the evaluation of hazards conducted under section 409.

A second major post-disaster hazard mitigation activity is the Interagency Hazard Mitigation Team activated after flood related disasters. In 1980, the Office of Management and Budget issued a directive to twelve Federal agencies requiring them to coordinate post-flood disaster assistance and recovery planning and to emphasize nonstructural flood hazard mitigation measures, to the greatest extent possible, as part of an effort to minimize Federal expenditures. The Interagency Agreement for Nonstructural Flood Damage Reduction signed by these agencies created interagency, intergovernmental, and interdisciplinary teams which identify and recommend approaches for recovery and mitigation actions through the production of a mitigation report 15 days after the declaration. These interagency teams often identify mitigation issues to be addressed in the State's section 409 hazard mitigation plan, and in the case of flood disasters replace the mitigation survey team.

A third post-disaster mitigation activity is the mitigation required under the public assistance program. Historically, FEMA has approached mitigation under the public assistance program in three basic ways: by requiring disaster assistance applicants to perform mitigation measures as a part of the floodplain management review process; by incorporating mitigation measures into the repair or reconstruction of facilities through existing code requirements; and by allowing a small portion of disaster assistance grants to be used for mitigation (formerly referred to as "disasterproofing").

Under new 44 CFR Part 206 regulations, FEMA has strengthened its emphasis on mitigation through the public assistance program. First, cost-effective hazard mitigation measures identified through floodplain management review or by other means, and required by FEMA, are an eligible grant activity. There is no limit on the percentage of the grant amount to be used for mitigation so long as the measure is cost-effective. This includes mitigation actions formerly covered under the concept of disasterproofing. Second, FEMA will fund public assistance work necessary to meet code requirements adopted after the declaration, as well as those in place prior to the disaster, when such standards apply to the type of work being performed. Code requirements can be adopted after the declaration but must be adopted before project approval. Section 404 funding is not to be used to fund any type of mitigation measure that might otherwise be eligible under public assistance, though section 404 funding might be used to complement or enhance mitigation funded under public assistance.

Major provisions of the section 404 interim regulations are outlined below, along with a discussion of key portions of the regulations.

1. The total estimate of Federal assistance available for the Hazard Mitigation Grant Program shall be based on 10 percent of the Federal share of the FEMA estimate of all Damage Survey Reports under section 406 of the Stafford Act (public assistance permanent restorative work). Federal contributions can be up to 50 percent of the cost of the hazard mitigation measures approved for funding.

—FEMA must determine when the final estimate is set so that a firm figure for section 404 funding can be established. The final 10 percent figure will be based on the estimate of the Federal share of all initial approved Damage Survey Reports (DSR's). Until such time as this figure is known, the State will operate under a FEMA estimate of the amount of funds expected to be available under section 404. The first estimate will be based on the preliminary damage assessment, and will be refined as more information becomes available from public assistance. Because of the period of months over which section 404 projects will be identified, it is not essential to lock into a final ceiling of funding until a reasonably reliable figure can be determined.

—The full amount of Federal funds available under section 404 is based on

the Federal share of the section 406 grants. Hence, if the section 406 grants are 75 percent Federal and 25 percent State funded, total section 404 funding will be based on the 75 percent Federal share. Even though section 404 funds are based on a percentage of public assistance funding, the measures funded under section 404 are not limited to measures that protect public facilities. Section 404 projects are derived from the full range of measures identified in the hazard mitigation plan developed under section 409.

—The law states that the President may contribute up to 50 percent of the cost of hazard mitigation measures. The Federal share of the mitigation measures will typically be 50 percent of the cost of the measures, unless the State or subgrantees wish to contribute more in order to increase the total amount available for mitigation. In no instance will the Federal share exceed 50 percent or exceed the final 10 percent estimate of section 406 funding. Any specific requirements for the cost-share will be established in the FEMA-State Agreement.

2. The State is designated as the grantee to which funds are awarded and which will be accountable for the use of those funds. State agencies, local governments, certain private nonprofit organizations, and Indian tribes are eligible subgrantees. Key State responsibilities for program management include determination of eligible applicants, identification and selection of projects for which funding is requested, identification of a State Hazard Mitigation Officer to serve as a point of contact for all program matters, and development of a State administrative plan that outlines procedures for administration of the program.

—In accordance with the "common rule" adopted by FEMA at 44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, States will be given as much flexibility and authority as possible in the management of the Hazard Mitigation Grant Program. States will act as the grantee with overall financial and management responsibility for the program and will be responsible for all interface with the applicants and subgrantees. The State's responsibilities will be governed by 44 CFR Part 13, by the requirements of 44 CFR Part 206 Subpart N, and by any other pertinent requirements that may apply to grant programs. FEMA will provide technical assistance necessary to implement the program.

—The State is responsible as grantee for ensuring that applicants meet the basic eligibility for subgrantees described at § 206.434, and that applicants receive adequate notification of the availability of and requirements for funding. Procedures for carrying out these requirements are to be contained in the State administrative plans for hazard mitigation described under § 206.437.

—The State will determine priorities for funding under section 404. These priorities must be consistent with the requirements of Subpart N, with the State's administrative plan for hazard mitigation, and with the section 409 hazard mitigation plan for the disaster. FEMA will work with the State through normal post-disaster mitigation processes to ensure that effective and worthwhile mitigation measures are selected for funding.

—A key responsibility of the State is to appoint a State Hazard Mitigation Officer (SHMO) with overall program responsibility for the section 404 program. The SHMO is also responsible for the development of the section 409 plan, which is the tool for identifying mitigation measures to be funded. Though overall program responsibility rests with the SHMO, who typically works in an emergency management or natural resources type of agency, the SHMO must rely on the support and resources of all other key State agencies that have a role in mitigation and recovery. The SHMO will work closely with the FEMA Hazard Mitigation Officer on the implementation of all disaster related mitigation programs and activities.

—The State must have an approved administrative plan for hazard mitigation in order to receive funding under the section 404 program. The administrative plan outlines all financial and administrative procedures that the State will follow to implement the Hazard Mitigation Grant Program. The Plan not only assures FEMA that the State has the capability to manage the program, but establishes essential procedures for the State's interface with FEMA and with the subgrantees. All States are required to develop such a plan within 180 days of publication of these regulations. The administrative plan is discussed in greater detail below.

3. The regulation establishes minimum criteria for mitigation measures eligible for funding under the Hazard Mitigation Grant Program. Any type of measure is eligible for funding so long as the measure benefits the disaster area and meets the basic project eligibility established in Subpart N. It is the State's responsibility to identify and select

mitigation projects. FEMA has final approval of all measures selected for funding under section 404.

—Subpart N establishes minimum criteria that all projects must meet in order to qualify for section 404 funding at § 206.434. A State may establish additional criteria through its administrative plan. The criteria found in Subpart N are based on the provisions of section 404 and on sound mitigation and environmental practices.

—The first requirement is that projects must follow an evaluation of hazards under section 409. Projects may be identified at any point in the section 409 planning process. They may be identified in a previous section 409 plan developed by the State, by the mitigation survey team or interagency team, or as the State develops the section 409 plan or update for the current disaster. Projects may also be identified through other mitigation plans for the disaster area, such as hurricane, earthquake, dam safety, or landslide plans, or through other mitigation plans that may have been developed for specific communities. Such plans should be consistent with plans developed under section 409, and should in fact be considered in the section 409 planning process. Because section 409 requires an evaluation of all natural hazards in the designated area, measures identified in the plan and selected for funding do not necessarily need to provide protection from the type of hazard(s) covered in the declaration, though priority may be given to those hazard(s). For example, a declaration may be made for tornadoes, high winds, and storms, but if repair and reconstruction is occurring in a flood hazard area, flood hazard mitigation measures may be selected for funding.

—Second, projects must have a beneficial impact on the disaster area although they might not necessarily be located in the disaster area. For example, land treatment and erosion control measures outside of the disaster area might be funded so long as those measures have a beneficial impact on the disaster area. A measure may also have an impact beyond the disaster area, such as the adoption of a statewide standard.

—Third, the measures must be in conformance with Executive Order 11988 and Executive Order 11990; 44 CFR Part 9, Floodplain Management and Protection of Wetlands; and 44 CFR Part 10, Environmental Considerations. The State (through information submitted by the applicant) will need to provide adequate environmental information to FEMA so that an environmental assessment of the project(s) can be completed. It is expected that the State

environmental agency would be involved in this process, and that the State might follow procedures that have already been established to meet environmental requirements of other grant programs.

—Fourth, projects must solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed. Independent studies which are not intended to result in a project(s) with measurable cost savings are not eligible. For example, a study to determine the location of debris basins might be funded as part of an overall project to construct debris basins. A study to merely determine the extent of a hazard in a community would not be eligible.

—A key criteria of all measures funded under section 404 is that they be cost-effective, and that the measure being proposed is the most cost-effective of a range of alternatives. The applicant must demonstrate that the measure is cost-effective, using the broad guidelines provided in § 206.434. To determine cost-effectiveness both benefits and costs must be calculated on a net present value basis. For the purpose of this calculation applicants will use the discount rate of ten percent, as established in OMB Circular No. A-94. Section 404 projects may be of any nature that will result in cost-effective protection to public or private property, whether structural or nonstructural. The list of types of projects contained in § 206.434 is by no means exhaustive.

—Section 404 funds are not intended to be used as a substitute or replacement to fund projects or programs that are authorized by other Federal authorities. In fact, section 404 funds should be considered as a source of last resort when seeking mitigation funding. Section 404 funds can be packaged with other Federal, State, local, or private funds to develop a comprehensive mitigation solution. However, section 404 funds are not to be used as the cost-share for other Federal programs, nor are other Federal funds to be used as the cost-share for section 404. For example, if National Flood Insurance Program Section 1362 funds are available to acquire and relocate flood damaged structures, section 404 funds might be used to purchase other structures in the area that do not qualify for Section 1362 funding to avoid a checkerboard pattern in the purchase of property.

—It is the State's responsibility to identify and select hazard mitigation projects. Basic selection criteria must be included in the State's administrative

plan, though additional specific criteria might be identified for a particular disaster. Selection criteria must at a minimum meet the requirements of § 206.435. The intent of the basic criteria outlined in Subpart N is to ensure selection of the best and most effective mitigation measures. Projects to be selected must be consistent with the section 409 plan, and will be identified as part of the normal post-disaster mitigation processes, with FEMA providing technical assistance to the State.

4. The Governor's Authorized Representative (GAR) serves as the grant administrator and is responsible for submitting an application to FEMA that contains basic information on mitigation projects for which funding is requested. In order to take advantage of post-disaster mitigation opportunities, the application, which will contain one or more projects, is due within 60 days of the disaster declaration. Supplements to the application will be submitted as additional projects are identified, or as previously approved projects are amended. All projects are to be identified within 60 days of FEMA approval of the section 409 hazard mitigation plan prepared as a condition of receiving Federal disaster assistance. The Regional Director has the authority to extend these dates upon submission of adequate justification from the State.

—As grantee, the State is responsible for financial and administrative management of the program. This includes providing technical advice and assistance to eligible subgrantees, and ensuring that all potential applicants are aware of assistance available and submission of those documents necessary for grant award. It is critical that the State have sound procedures outlined in the administrative plan to ensure that all applicants and subgrantees receive adequate information and fair treatment under the program.

—The application, due within 60 days of the declaration, must include a Standard Form 424 and a narrative statement describing each measure for which funding is requested, as outlined in § 206.436. The application will identify one or more mitigation measures for which funding is requested. As additional measures are identified or as modifications are made to previously funded measures, supplements to the application will be submitted to FEMA. The intent here is to be consistent with other timelines for applications under disaster assistance, and to encourage applicants to identify those types of mitigation measures that

must be implemented quickly before recovery begins. Based on discussions with FEMA and State staff, it was determined that it is reasonable to assume that at least one mitigation measure would be identified within the first 60 days following a declaration, though comments are being sought on the adequacy of this timeframe. It is expected that additional mitigation measures will be identified and submitted to FEMA for funding for several months after the declaration, throughout the development of the section 409 mitigation plan. All supplements for the purpose of identifying new measures to be funded are to be submitted to FEMA within 60 days of FEMA approval of the section 409 plan. The section 409 plan is due 180 days after the disaster declaration, though States may receive an extension of that date if justified. In the past, States have often requested and been granted extensions to the due date of the section 409 plan, generally up to 1 year after the declaration. Allowing approximately 1 month for FEMA approval of the section 409 plan, States will typically have 90 days after the completion of the section 409 plan to submit new measures for section 404 funding. If justified, the FEMA Regional Director can grant extensions to either the application date or the date of the final supplement for new measures. In setting the deadlines for these submissions, FEMA is attempting to strike a balance between encouraging early identification of mitigation measures that must be implemented before recovery begins, and allowing sufficient time to select the most appropriate measures contained in the section 409 plan.

—Though it is up to the State and to the applicants to identify potential measures for funding, and though the State establishes criteria for selecting projects to be funded, FEMA does have final approval of funding for all projects. It is therefore essential that FEMA and the State work together closely throughout the identification and selection process to ensure that program guidelines are being followed and that appropriate and worthwhile mitigation measures are identified.

5. The State must submit an administrative plan outlining the procedures for administration of the Hazard Mitigation Grant Program within 180 days following publication of these regulations. This regulation outlines the points which must be addressed in the State administrative plan. Hazard mitigation funding cannot be awarded

without receipt and approval of the plan by FEMA.

—As grantee, it is essential that the State have an administrative plan in place that details financial and administrative procedures for implementation of the program. Funds shall not be awarded under section 404 until a State administrative plan for hazard mitigation has been approved. All States are encouraged to develop administrative plans as quickly as possible so that section 404 funding is not delayed in the event of a disaster. FEMA now also requires an administrative plan for public assistance under 44 CFR Part 206 (54 FR 11610; March 21, 1989). The administrative plans for hazard mitigation and public assistance will have many similarities, particularly in terms of financial procedures and grant management. States can use the Disaster Preparedness Improvement Grant (44 CFR Part 300) as a means of preparing and keeping these administrative plans up to date.

—It is not intended that the plan for hazard mitigation be a lengthy document. The emphasis should be on providing useful guidance to the State on the procedures necessary to implement the program. At a minimum, the plan must address the criteria outlined in § 206.437. It is expected that the administrative plan will become part of the State's overall emergency response or operations plan as a separate annex or chapter. Following each major disaster declaration, the State shall prepare any necessary updates, guidance, or changes in the administration of the program.

6. The regulations establish guidelines incorporating the grant management procedures of 44 CFR Part 13 and the audit requirements of 44 CFR Part 14. The regulations describe how the GAR shall handle cost overruns, progress reports, advance of funds, payment of claims, and appeals. Specific guidance on allowable project and administrative costs is provided.

—As grantee, the State has primary responsibility for project management and accountability of funds as indicated in 44 CFR Part 13, and is responsible for ensuring that subgrantees meet all program and administrative requirements. The procedures needed to accomplish this should be included in the State's administrative plan.

—Because funding of mitigation measures is based on an estimate of costs, it is expected that cost overruns and underruns will occur. For cost overruns under 10 percent, the GAR has the authority to approve overruns,

so long as they are offset by underruns on other projects. If cost overruns exceed 10 percent of the approved project cost, the GAR must submit a request with a recommendation to the Regional Director for a final determination. All problems or circumstances affecting completion dates, scope of work, or project costs that are not consistent with the approved grant conditions must be reported to FEMA through quarterly reports. The intent is to allow the State a reasonable amount of freedom in managing the program and not to burden FEMA with minor adjustments to the projects, while at the same time providing FEMA an adequate level of information and oversight on a regular basis.

- In accordance with 44 CFR Part 13, and as established in section 406 of the Stafford Act, the States and subgrantees are allowed certain costs in administering the program. Subgrantee administrative expenses, and extraordinary costs incurred by the State, are provided for on a percentage basis under 44 CFR 206.228, Allowable Cost (public assistance). Costs of State personnel (regular time salaries only) assigned to administer the Hazard Mitigation Grant Program may be eligible when approved by the Regional Director as outlined in § 206.439. The staffing pattern for which funding is requested must be in accordance with the State administrative plan. This is another area of the program where it is essential to have clear and adequate procedures contained within the administrative plan.
- The timelines established for appeals under § 206.440 are consistent with the timelines established for other disaster assistance programs and are in conformance with the Stafford Act. The first level to which the GAR submits an appeal is the Regional Director, with the Associate Director of State and Local Programs and Support as the second and final level of appeal.

For further information on the Hazard Mitigation Grant Program, contact Patricia Stahlschmidt at 202-646-3678.

Environmental Considerations

An environmental assessment has been prepared, leading to the determination that this rule will not have a significant impact on the environment and that an Environmental Impact Statement is not required. The assessment is available for review at the Office of the Rules Docket Clerk, Office of General Counsel, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

Regulatory Flexibility

FEMA has determined that this rule is not a major rule under Executive Order 12291, and will not have a significant impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act. Hence, no regulatory impact analyses have been prepared.

Federalism Assessment

In promulgating this rule, FEMA has considered the President's Executive Order on Federalism issued on October 26, 1987 (E.O. 12612, 52 FR 41685). The purpose of the Order is to assure the appropriate division of governmental responsibilities between national government and the States. Among other provisions, this rule implements the requirement that agency rules be in accordance with the so-called common rule, adopted by FEMA at 44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. These regulations conform FEMA assistance to Executive Order 12612. To describe this, a Federalism assessment has been prepared. It may be obtained or reviewed at the Office of the Rules Docket Clerk, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

Reporting Requirements

The information collection requirements in this interim rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1980, as amended, 44 U.S.C. 3501 *et seq.* Submit comments on these requirements to the Office of Information and Regulatory Affairs, OMB, 726 Jackson Place NW., Washington, DC 20503 marked "Attention: Ms. Pamela Barr, FEMA Desk Officer." The final rule will respond to any OMB or public comments on the information collection requirements.

List of Subjects in 44 CFR Part 206

Disaster assistance: General, The declaration process, Emergency assistance, Individual assistance, Public assistance, The Coastal Barrier Resources Act, Community disaster loans, Fire suppression, Hazard mitigation.

Accordingly, FEMA is amending Chapter I, of Subchapter D, Part 206 of Title 44 as follows:

PART 206—[AMENDED]

1. The authority citation for Part 206 continues to read as follows:

Authority: The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. 93-288, as amended by Pub. L. 100-707; 42 U.S.C. 5121, *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12148; and E.O. 12673.

2. By adding Subpart N to read as follows:

Subpart N—Hazard Mitigation Grant Program

Sec.

- 206.430 General.
- 206.431 Definitions.
- 206.432 Federal Grant Assistance.
- 206.433 State Responsibilities
- 206.434 Eligibility
- 206.435 Project Identification and Selection Criteria
- 206.436 Application Procedures
- 206.437 State Administrative Plan
- 206.438 Project Management
- 206.439 Allowable Costs
- 206.440 Appeals

Subpart N—Hazard Mitigation Grant Program

§ 206.430 General

This subpart provides guidance on the administration of hazard mitigation grants made under the provisions of section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Pub. L. 93-288, as amended) hereafter referred to as the Stafford Act.

§ 206.431 Definitions.

(a) "Applicant" means a State agency, local government, or eligible private nonprofit organization, as defined in Subpart H of this regulation, submitting an application to the GAR for assistance under the Hazard Mitigation Grant Program.

(b) "Application" means the initial request for section 404 funding, to be submitted to FEMA by the State within 60 days of the declaration, as outlined in § 206.436.

(c) "Grant" means an award of financial assistance. The total grant award shall not exceed ten percent of the estimated total eligible Federal share of all Damage Survey Reports (DSR's) under section 406 of the Stafford Act.

(d) "Grantee" means the government to which a grant is awarded and which is accountable for the use of the funds provided. The grantee is the entire legal entity even if only a particular component of the entity is designated in the grant award document. For purposes of this regulation, except as noted in § 206.436(f), the State is the grantee.

(e) "Hazard Mitigation Survey Team (HMST)" means the FEMA/State/Local survey team that is activated following disasters to identify immediate

mitigation opportunities and issues to be addressed in the section 409 Hazard Mitigation Plan. The HMST may include representatives of other Federal agencies, as appropriate.

(f) "Interagency Hazard Mitigation Team (IHMT)" means the mitigation team that is activated following flood related disasters pursuant to the July 10, 1980 Office of Management and Budget directive on Nonstructural Flood Protection Measures and Flood Disaster Recovery, and the subsequent December 15, 1980 Interagency Agreement for Nonstructural Damage Reduction.

(g) "Measure" means any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term "measure" is used interchangeably with the term "project" in the regulations.

(h) "Project" means any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term "project" is used interchangeably with the term "measure" in the regulations.

(i) "Section 409 Hazard Mitigation Plan" is the hazard mitigation plan required under section 409 as a condition of receiving Federal disaster assistance under Pub. L. 93-288, as amended. The section 409 plan is the basis for the identification of measures to be funded under section 404.

(j) "State Administrative Plan for the Hazard Mitigation Grant Program" means the plan developed by the State to describe the procedures for administration of the Hazard Mitigation Grant Program.

(k) "State Hazard Mitigation Officer" is the representative designated by the GAR as the responsible individual on all matters related to the Hazard Mitigation Grant Program.

(l) "Subgrant" means an award of financial assistance under a grant by a grantee to an eligible subgrantee.

(m) "Subgrantee" means the government or other legal entity to which a subgrant is awarded and which is accountable to the grantee for the use of the funds provided. Subgrantees can be a State agency, local government, private non-profit organization, or Indian tribe as outlined in § 206.434.

§ 206.432 Federal grant assistance.

(a) *General.* This section describes the extent of Federal funding available under the State's grant, as well as limitations and special procedures applicable to each.

(b) *Limitations on Federal Expenditures.* The total of Federal assistance under this section shall not

exceed 10 percent of the estimated Federal assistance under section 406. The estimate of Federal Assistance under section 406 shall be based on the Regional Director's (RD) estimate of all Damage Survey Reports (DSR's).

(c) *Cost Sharing.* All mitigation measures approved under the State's grant will be subject to the cost sharing provisions established in the FEMA-State Agreement. FEMA may contribute up to 50 percent of the cost of measures approved for funding under the Hazard Mitigation Grant Program. The nonfederal share may exceed the Federal share. Costs above the federally approved estimate for mitigation measures are the responsibility of the grantee and subgrantee. (See § 206.438(b) Cost Overruns.)

§ 206.433 State Responsibilities.

(a) *Grantee.* The State will be the Grantee to which funds are awarded and will be accountable for the use of those funds. There may be subgrantees within the State government.

(b) *Priorities.* The State will determine priorities for funding. This determination must be made in conformance with § 206.435.

(c) *Hazard Mitigation Officer.* The State must appoint a Hazard Mitigation Officer, as required under 44 CFR Part 205 Subpart M, who serves as the responsible individual for all matters related to the Hazard Mitigation Grant Program.

(d) *Administrative Plan.* The State must have an approved administrative plan for the Hazard Mitigation Grant Program in conformance with § 206.437.

§ 206.434 Eligibility.

(a) *Applicants.* The following are eligible to apply for the Hazard Mitigation Program Grant:

(1) State and local governments;

(2) Private non-profit organizations or institutions that own or operate a private non-profit facility as defined in § 206.221(e);

(3) Indian tribes or authorized tribal organizations and Alaska Native villages or organizations, but not Alaska native corporations with ownership vested in private individuals.

(b) *Minimum Project Criteria.* To be eligible for the Hazard Mitigation Grant Program, a project must:

(1) Be in conformance with the hazard mitigation plan developed as a requirement of section 409;

(2) Have a beneficial impact upon the designated disaster area, whether or not located in the designated area;

(3) Be in conformance with 44 CFR Part 9, Floodplain Management and

Protection of Wetlands, and 44 CFR Part 10, Environmental Considerations;

(4) Solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed. Projects that merely identify or analyze hazards or problems are not eligible;

(5) Be cost-effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster. The grantee must demonstrate this by documenting that the project:

(i) Addresses a problem that has been repetitive, or a problem that poses a significant risk if left unsolved,

(ii) Will not cost more than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur. Both costs and benefits will be computed on a net present value basis,

(iii) Has been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options,

(iv) Contributes, to the extent practicable, to a longterm solution to the problem it is intended to address,

(v) Considers long-term changes to the areas and entities it protects, and has manageable future maintenance and modification requirements.

(c) *Types of Projects.* Projects may be of any nature that will result in protection to public or private property. Eligible projects include, but are not limited to:

(1) Structural hazard control or protection projects;

(2) Construction activities that will result in protection from hazards;

(3) Retrofitting of facilities;

(4) Acquisition or relocation;

(5) Development of State or local mitigation standards;

(6) Development of comprehensive hazard mitigation programs with implementation as an essential component;

(7) Development or improvement of warning systems.

(d) *Duplication of Programs.* Section 404 funds cannot be used as a substitute or replacement to fund projects or programs that are available under other Federal authorities.

(e) *Packaging of Programs.* Section 404 funds may be packaged or used in combination with other Federal, State, local, or private funding sources when appropriate to develop a comprehensive mitigation solution, though section 404 funds cannot be used as a match for other Federal funds.

§ 206.435 Project identification and selection criteria.

(a) *Identification.* It is the State's responsibility to identify and select hazard mitigation projects. All funded projects must be consistent with the State's section 409 hazard mitigation plan. Hazard mitigation projects may be identified through the section 409 process, or through any other appropriate means. Procedures for the identification, funding, and management of mitigation projects shall be included in the State's administrative plan.

(b) *Selection.* The State will establish procedures and priorities for the selection of mitigation measures. At a minimum the criteria must be consistent with the criteria stated in § 206.434(b) and include:

(1) Measures that best fit within an overall plan for development and/or hazard mitigation in the community, disaster area, or State;

(2) Measures that, if not taken, will have a severe detrimental impact on the applicant, such as potential loss of life, loss of essential services, damage to critical facilities, or economic hardship on the community;

(3) Measures that have the greatest potential impact on reducing future disaster losses;

(c) *Other Considerations.* In addition to the selection criteria noted above, consideration should be given to measures that are designed to accomplish multiple objectives including damage reduction, environmental enhancement, and economic recovery, when appropriate.

§ 206.436 Application procedures.

(a) *General.* This section describes the procedures to be used by the State in submitting an application for funding for hazard mitigation grants. Under the Hazard Mitigation Grant Program the State is the grantee and is responsible for processing subgrants to applicants in accordance with 44 CFR Parts 13 and 206.

(b) *Governor's Authorized Representative (GAR).* The GAR serves as the grant administrator for all funds provided under the Hazard Mitigation Grant Program. The GAR's responsibilities as they pertain to procedures outlined in this section include providing technical advice and assistance to eligible subgrantees, and ensuring that all potential applicants are aware of assistance available and submission of those documents necessary for grant award.

(c) *Hazard Mitigation Application.* Within 60 days of the disaster declaration, the State (GAR) will submit its section 404 Hazard Mitigation

Application to the FEMA Regional Director (RD). The Application will identify one or more mitigation measures for which funding is requested. The Application must include a Standard Form (SF) 424, Application for Federal Assistance, SF 424D, Assurances for Construction Programs if appropriate, and a narrative statement. The narrative statement will contain any pertinent project management information not included in the State's administrative plan for Hazard Mitigation. The narrative statement will also serve to identify the specific mitigation measures for which funding is requested. Information required for each mitigation measure shall include the following:

- (1) Name of the subgrantee, if any;
- (2) State or local contact for the measure;
- (3) Location of the project;
- (4) Description of the measure;
- (5) Cost estimate for the measure;
- (6) Analysis of the measure's cost-effectiveness and substantial risk reduction, consistent with § 206.434(b);
- (7) Work schedule;
- (8) Justification for selection;
- (9) Alternatives considered;
- (10) Environmental information consistent with 44 CFR Part 9, Floodplain Management and Protection of Wetlands, and 44 CFR Part 10, Environmental Considerations;

(d) *Supplements.* The application may be amended as the State and subgrantees develop the section 409 hazard mitigation plan and continue to identify measures to be funded. Amendments to add or modify measures are made by submitting supplements to the application. All supplements to the application for the purpose of identifying new mitigation measures must be submitted to FEMA within 60 days of FEMA approval of the section 409 plan. The supplements shall contain all necessary information on the measures as described in § 206.436(c).

(e) *FEMA Approval.* The application and supplement(s) will be submitted to the FEMA RD for approval. FEMA has final approval authority for funding of all projects.

(f) *Exceptions.* The following are exceptions to the above outlined procedures and time limitations.

(1) *Grant Applications.* An Indian tribe or authorized tribal organization may submit a SF 424 directly to the RD when assistance is authorized under the Act and a State is unable to assume the responsibilities prescribed in these regulations.

(2) *Time Limitations.* The time limitations shown in paragraphs (c) and (d) of this section may be extended by

the RD when justified and requested in writing by the GAR.

§ 206.437 State administrative plan.

(a) *General.* The State shall develop a plan for the administration of the Hazard Mitigation Grant Program. The State administrative plan must be submitted to FEMA within 180 days of publication of these regulations.

(b) *Minimum Criteria.* At a minimum, the State administrative plan must include the items listed below:

(1) Designation of the State agency that will have responsibility for program administration;

(2) Identification of the State Hazard Mitigation Officer responsible for all matters related to the Hazard Mitigation Grant Program.

(3) Determination of staffing requirements and sources of staff necessary for administration of the program;

(4) Establishment of procedures to:

(i) Identify and notify potential applicants (sub-grantees) of the availability of the program;

(ii) Ensure that potential applicants are provided information on the application process, program eligibility and key deadlines;

(iii) Determine applicant eligibility;

(iv) Conduct environmental and floodplain management reviews;

(v) Establish priorities for selection of mitigation projects;

(vi) Process requests for advances of funds and reimbursement;

(vii) Monitor and evaluate the progress and completion of the selected projects;

(viii) Review and approve cost overruns;

(ix) Process appeals;

(x) Provide technical assistance as required to sub-grantee(s);

(xi) Comply with the administrative requirements of 44 CFR Parts 13 and 206;

(xii) Comply with audit requirements of 44 CFR Part 14;

(xiii) Provide quarterly progress reports to the Regional Director on approved projects.

(c) *Format.* The administrative plan is intended to be a brief but substantive plan documenting the State's process for the administration of the Hazard Mitigation Grant Program and management of the section 404 funds. This administrative plan should be become a part of the State's overall emergency response or operations plan as a separate annex or chapter.

(d) *Approval.* The State must submit the administrative plan to the Regional Director for approval. Following each major disaster declaration, the State

shall prepare any updates, amendments, or plan revisions required to meet current policy guidance or changes in the administration of the Hazard Mitigation Grant Program. Funds shall not be awarded until the State administrative plan is approved by the FEMA Regional Director.

§ 206.438 Project management.

(a) *General.* The State serving as grantee has primary responsibility for project management and accountability of funds as indicated in 44 CFR Part 13. The State is responsible for ensuring that subgrantees meet all program and administrative requirements.

(b) *Cost Overruns.* During the execution of work on an approved mitigation measure the GAR may find that actual project costs are exceeding the approved estimates. The GAR shall evaluate each cost overrun and, if it exceeds 10 percent of the approved project cost, submit a request with a recommendation (based on the applicant's justification for additional costs) to the RD for a final determination. Cost overruns under 10 percent of the approved project cost will be allowed by the RD as long as there are offsetting cost underruns on other projects. The RD shall notify the GAR in writing of the final determination and process a supplement, if necessary. All requests that are not justified shall be denied by the GAR. In no case will the total amount obligated to the State exceed the funding limits set forth in § 206.432(b).

(c) *Progress Reports.* The grantee shall submit a quarterly progress report to FEMA indicating the status and completion date for each measure funded. Any problems or circumstances affecting completion dates, scope of work, or project costs which are expected to result in noncompliance with the approved grant conditions shall be described in the report.

(d) *Payment of Claims.* The GAR shall make a claim to the RD for reimbursement of allowable costs for each approved measure. In submitting such claims the GAR shall certify that reported costs were incurred in the performance of eligible work, that the approved work was completed and that the mitigation measure is in compliance with the provisions of the FEMA-State Agreement. The RD shall determine the eligible amount of reimbursement for each claim and approve payment. If a

mitigation measure is not completed, and is without adequate justification for noncompletion, no Federal funding will be provided for that measure.

(e) *Audit Requirements.* Uniform audit requirements as set forth in 44 CFR Part 14 apply to all grant assistance provided under this Subpart. FEMA may elect to conduct a Federal audit on the disaster assistance grant or on any of the subgrants.

§ 206.439 Allowable costs.

(a) *General.* General policies and guidelines for determining allowable costs are established in 44 CFR 13.22 and detailed in OMB Circulars A-21, A-87, and A-122. Cost guidelines not covered in the above referenced OMB Circulars are set forth below.

(b) *Subgrantee administrative expenses.* Pursuant to section 406(f)(1) of the Stafford Act, necessary costs of requesting, obtaining, and administering Federal disaster assistance subgrants will be covered by an allowance which is based on a percentage of total net eligible costs under sections 403, 404, 406, 407, 502, and 503 of the Act. The applicable percentages may be found under Public Assistance Eligibility (Subpart H) § 206.228(b)(1).

(c) *Grantee administrative expenses.* Pursuant to 406(f)(2) of the Stafford Act, an allowance will be provided to the State to cover the extraordinary costs incurred by the State for preparation of applications, quarterly reports, final audits, and related field inspections by State employees, including overtime pay and per diem and travel expenses, but not including regular time for such employees. The allowance will be based on a percentages of total assistance provided for all subgrantees in the State under sections 403, 404, 406, 407, 502, and 503 of the Act. The applicable percentages may be found under Public Assistance Eligibility (Subpart H) § 206.228(b)(2).

(d) *State Management Costs.* (1) Costs of State personnel (regular time salaries only) assigned to administer the Hazard Mitigation Grant program in the Disaster Field Office (DFO) may be eligible when approved by the Regional Director. The State shall submit a plan for the staffing of the DFO within 5 days of the opening of the office. This plan and the plans required in paragraph (d)(2) of this section shall be in accordance with the administrative plan requirements of

§ 206.437, State administrative plan, in this subpart.

(2) After the close of the DFO, costs of State personnel (regular time salaries only) for continuing management of the Hazard Mitigation grants may be eligible when approved in advance by the Regional Director. The State shall submit a plan for such staffing in advance of the requirement.

§ 206.440 Appeals.

(a) *GAR.* The GAR may appeal any determination previously made related to Federal assistance for a subgrantee. The GAR's appeal shall be made in writing and submitted within 60 days after receipt of notice of the action which is being appealed.

(b) *Regional Director.* Upon receipt of an appeal, the RD shall review the material submitted and make such additional investigations as deemed appropriate. Within 90 days following receipt of all related information the RD shall notify the GAR, in writing, as to disposition of the appeal. If the decision is to grant the appeal, the RD will take appropriate implementing action.

(c) *Associate Director.* (1) If the RD denies the appeal, the GAR may submit a second appeal to the Associate Director. Such appeals shall be made in writing, through the RD, and shall be submitted not later than 60 days after receipt of notice of the RD's denial of the first appeal. The Associate Director shall render a determination on the GAR's appeal within 90 days following receipt of all related information. Action by the Associate Director is final.

(2) In rendering such determinations the Associate Director may, in those cases involving appeals of a highly technical nature, refer the appeal to an independent scientific or technical body for review. The GAR must first agree to such a process, including a waiver of the 90 day time limitation for appeal resolution, as well as, sharing in the cost of such reviews.

(3) The Associate Director will periodically review determinations rendered by the RD to ensure that appeals are being given fair and impartial consideration.

Dated: May 15, 1989.

Grant C. Peterson,

Associate Director, State and Local Programs and Support.

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Monday
May 22, 1989

Part IV

Department of the Interior

Bureau of Indian Affairs

Office of Surface Mining Reclamation and Enforcement

25 CFR Parts 200 and 750

Surface Coal Mining and Reclamation Operations; Federal Program for Indian Lands; Final Rule

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

Office of Surface Mining Reclamation and Enforcement

25 CFR Parts 200 and 750

RIN 1029-AB04

Surface Coal Mining and Reclamation Operations; Federal Program for Indian Lands

AGENCY: Bureau of Indian Affairs, Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Bureau of Indian Affairs (BIA) of the United States Department of the Interior (DOI) are adopting a final rule clarifying and revising the regulatory and leasing requirements for surface coal mining and reclamation operations on Indian lands. Those changes respond to settlement agreements reached in United States District Court for the District of Columbia concerning OSMRE's Federal program for Indian lands. The rule establishes the Secretary of the Interior (the Secretary) as the exclusive regulatory authority for surface coal mining operations on Indian lands, and clarifies the jurisdictional status under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act) of Indian allotments and tribal fee lands located outside the boundaries of Federal Indian reservations. The final rule also deletes the permit application information requirement concerning the American Indian Religious Freedom Act and clarifies and recodifies the procedures for incorporating the requirements of SMCRA, including tribe-requested terms and conditions, into existing and new leases for coal on Indian lands.

EFFECTIVE DATE: June 21, 1989.

FOR FURTHER INFORMATION CONTACT: Suzanne Hudak, Office of Surface Mining Reclamation and Enforcement, U.S. Department of the Interior, 1951 Constitution Avenue NW., Washington, DC 20240; Telephone: 202-343-4540 (Commercial or FTS).

SUPPLEMENTARY INFORMATION:

- I. Background
- II. Discussion of Final Rule and Responses to Public Comments on Proposed Rule
- III. Procedural Matters

I. Background

The Surface Mining Control and Reclamation Act of 1977, Pub. L. 95-87, 30 U.S.C. 1201 *et seq.*, provides statutory

authority for the development of regulations for surface coal mining operations. Section 710(d) requires compliance "[o]n and after thirty months from the enactment of this Act," with requirements at least as stringent as those imposed by sections 507, 508, 509, 510, 515, 516, 517, and 519 of SMCRA, for all surface coal mining operations on Indian lands. It also directs the Secretary of the Interior to incorporate the requirements of such provisions in all existing and new leases issued for coal on Indian lands. Section 710(e) further requires the Secretary to include and enforce in all post-SMCRA leases of coal on Indian lands, such terms and conditions as may be requested by the Indian tribe in such leases.

On September 28, 1984, the Secretary issued a final rule implementing the requirements of sections 710(d) and 710(e) of SMCRA (49 FR 38462). A new subchapter, Subchapter E—Indian Lands Program, was added to 30 CFR Chapter VII and included Part 750—Requirements For Surface Coal Mining And Reclamation Operations On Indian Lands, and Part 755—Tribal-Federal Intergovernmental Agreements.

The final Indian lands rules were subsequently challenged by the State of New Mexico (*New Mexico v. DOI*, Civil No. 84-3572 (D.D.C.)), (hereafter, "*New Mexico*") and the National Coal Association/American Mining Congress (*NCA/AMC v. DOI*, Civil No. 84-3586 (D.D.C.)), (hereafter, "*NCA/AMC*"). Both challenges were settled in U.S. District Court in August 1985 under separate agreements in which OSMRE agreed to undertake certain rulemaking actions concerning the Federal program for Indian lands.

On August 21, 1987, OSMRE published a notice in the *Federal Register* suspending the final rule at 30 CFR 750.20(a) pursuant to the *NCA/AMC* settlement agreement (52 FR 31621).

On February 10, 1988, OSMRE published a proposed rule to clarify and amend the preamble and regulations for the Indian lands program in accordance with the terms of the *New Mexico* and *NCA/AMC* agreements (53 FR 3992). The notice announced a 60-day comment period ending on April 20, 1988, and public hearings to be held upon request in Washington, DC and Denver, Colorado. A public hearing was requested and held in Denver on April 13, 1988, during which OSMRE received requests for an extension of the public comment period. The comment period on the proposed rule was reopened until May 12, 1988, in response to the requests received at the public hearing. The notice reopening the public comment

period was published in the *Federal Register* on April 27, 1988 (53 FR 15064).

II. Discussion of Final Rule and Response to Public Comments on Proposed Rule

During the comment period, OSMRE received comments from three Indian tribes, an energy resource tribal organization, a national coal industry trade organization, and a coal company. OSMRE has reviewed each comment carefully and has considered the commenters' suggestions and remarks in preparing the final rule.

Many of the comments received were general in nature and others went beyond the scope of the proposed rulemaking. These general comments and concerns are addressed in the section that follows. Comments of a more specific nature on the proposed rule are discussed in the section-by-section analysis portion of the preamble.

A. General Comments

OSMRE published the proposed rule pursuant to the provisions of the *NCA/AMC* and *New Mexico* settlement agreements. One commenter expressed support for the rules as proposed and urged OSMRE to move forward expeditiously with the final rule.

Several commenters contended that the Secretary failed to consult with the Indian tribes prior to entering into the settlement agreements in *New Mexico* and *NCA/AMC* and variously maintained that the agreements and the proposed regulations are violative of Federal law including SMCRA, Federal policy promoting tribal self-government, Federal fiduciary and trust responsibilities, tribal sovereignty, and the tribes' right to due process. One commenter recommended that, if necessary, OSMRE should move to vacate or modify the agreements so that they comport with Federal law. Another commenter opposed the proposed regulations as an effort to circumvent tribal aspirations to regulate mining activities on their lands and recommended renewed efforts by the Secretary to develop enabling legislation, pursuant to section 710 of SMCRA, authorizing tribal assumption of primacy. This commenter further recommended that OSMRE meet with other DOI agencies to examine, as a whole, legislation and Congressional intent regarding tribal sovereignty and self-determination. Another commenter contended that promulgation of the final rule would only result in further litigation and recommended alternatively that OSMRE meet with the affected tribes, companies, and States to

discuss, and attempt to resolve, the issues of concern. One tribal commenter posed a series of questions regarding OSMRE's consultations with the tribe and industry, and within DOI, during settlement negotiations and the rulemaking process.

OSMRE considers those comments which address the propriety of the manner in which the Secretary entered the settlement agreements, or the substance of the settlement agreements, irrelevant to this rulemaking, in that they do not specifically discuss the merits of the proposal itself. Similarly, comments which address efforts to develop legislation pursuant to section 710 are beyond the scope of this rulemaking. This rulemaking is consistent with SMCRA and other applicable Federal law and does not affect existing Federal law or policy regarding tribal self-government, Federal fiduciary and trust responsibilities, tribal sovereignty, and the tribes' right to due process. The commenter's belief that promulgation of this rule might result in litigation does not address the merits of the rulemaking and is not an appropriate factor to be considered in development of the final rule.

Two commenters raised issues concerning the jurisdictional status of the Crow Ceded Area in Montana and asserted their views regarding tribal authority to regulate on tribal lands. One of the commenters expressed opposition to OSMRE's settlement agreement with the State of Montana and Westmoreland Resources, Inc., regarding regulation of surface coal mining on the Crow Ceded Area.

As stated herein, OSMRE is the exclusive regulatory authority on Indian lands under SMCRA. Review of the complex issues surrounding the jurisdictional status of the Crow Ceded Area and the settlement agreement referenced by the commenter are more properly dealt with under the terms of the settlement agreement and Memorandum of Understanding.

Another commenter posed a question regarding the future of Title V funding for the tribes, with or without adoption of the proposed regulations.

OSMRE considers this comment beyond the scope of this rulemaking.

B. Clarification and Comments

Clarification of Regulatory Authority on Indian Lands

The rule at 30 CFR 750.6(a) designates OSMRE as the regulatory authority on Indian lands. Pursuant to the *New Mexico* and *NCA/AMC* settlements, OSMRE published a proposed

clarification of this rule stating that OSMRE is, and will remain, the sole regulatory authority of surface coal mining operations on Indian lands in Arizona and New Mexico until legislation is enacted authorizing Indian tribes to assume regulatory primacy and the tribes elect to do so.

Three commenters objected to the proposed clarification as inconsistent with the Indian tribes' inherent sovereign power to regulate activities on lands under their jurisdiction, citing Federal Indian law, Federal policy promoting tribal self-government, and various court decisions to support their position. Two of the commenters also cited section 710(h) of SMCRA (30 U.S.C. section 1300(h)), wherein it states that "nothing in this Act shall change the existing jurisdictional status of Indian Lands," as confirmation of Congressional intent to preserve tribal governmental authority to regulate surface mining activities on tribal lands.

OSMRE disagrees in part. Pending Congressional enactment of additional legislation pursuant to section 710(a) of SMCRA, OSMRE interprets SMCRA to provide that the Indian tribes are not authorized by SMCRA to act as the regulatory authority for surface coal mining on Indian lands concerning matters which are regulated under SMCRA. This rulemaking does not discuss or affect the extent to which the Indian tribes may have residual or inherent authority to regulate any aspect or impacts of surface coal mining operations. Whether such authority exists is beyond the scope of this rulemaking. A more detailed discussion of the Secretary's regulatory authority on Indian lands can be found in the preamble to the September 28, 1984, final Indian lands rule (49 FR 38462 *et seq.*).

OSMRE also rejects the commenters' interpretation of section 710(h) of SMCRA. Section 710(a) mandates the enactment of enabling legislation as a prerequisite to tribal assumption of full regulatory authority under the Act. OSMRE does not interpret section 710(h) as impairing the Secretary's authority to act as regulatory authority for surface coal mining operations on Indian lands and to implement the requirements of sections 710 (c), (d), (e), and (f).

One commenter objected to the proposal on the grounds that it would preclude OSMRE from delegating SMCRA responsibilities to Indian tribes until and unless section 710 legislation is adopted, and suggested that the tribes could assume concurrent regulatory jurisdiction with OSMRE without enactment of such legislation. Another commenter suggested that the Indian

tribes could regulate surface coal mining activities on their lands through contractual arrangements with the Secretary.

OSMRE disagrees that section 710 legislation is unnecessary for tribal assumption of surface mining regulatory duties, for the reasons stated earlier in this preamble that section 710(a) specifically requires the enactment of enabling legislation for the assumption of tribal regulatory authority under SMCRA concerning surface coal mining operations on Indian lands. Furthermore, section 710 does not authorize delegation of the Secretary's regulatory authority under SMCRA concerning Indian lands. OSMRE notes that this position is supported by the fact that Congress found it necessary to enact specific legislation authorizing the tribes to assume Title IV functions under SMCRA. (Pub. L. 100-71, 30 U.S.C. 1235, as amended.) Because of the wide range of regulatory responsibilities under Title V, it is reasonable to assume that Congress would find it even more necessary to enact specific legislation authorizing the tribes to assume regulatory functions under Title V of SMCRA. This rulemaking does not address the question of what OSMRE might do if other appropriate legislation were to authorize such delegation, in whole or in part. OSMRE therefore does not consider this rulemaking action the proper forum for discussing the plausibility and merits of the potential regulatory arrangements posed by the commenters.

One of the commenters objected to the proposed clarification as discriminatory under the Fifth Amendment, claiming that the designation of OSMRE as the sole regulatory authority only in the States of Arizona and New Mexico intentionally targeted specific Indian tribes for adverse treatment. This commenter also questioned the origin of, and basis for, the proposal.

OSMRE disagrees that this action is discriminatory in intent or in effect. The clarification is intended to resolve any ambiguity regarding surface mining regulatory jurisdiction on Indian lands in the two States where this question has been specifically at issue in the *New Mexico* and *NCA/AMC* challenges, namely Arizona and New Mexico. OSMRE does acknowledge, however, that the clarification could be misinterpreted by the public as confining the agency's regulatory jurisdiction on Indian lands exclusively to those two States and hereby further clarifies that OSMRE's exclusive regulatory authority extends to all

surface coal mining operations, or portions thereof, located on Indian lands as defined in section 701 of SMCRA. OSMRE's regulatory jurisdiction on Indian lands is based on and authorized by section 710 of SMCRA.

One commenter opposed the proposed clarification as incongruent with tribal and agency efforts to develop tribal capabilities to regulate surface coal mining operations on their lands, citing OSMRE's own findings regarding the partial regulatory abilities of two of the coal-producing tribes as evidence of the progress and success of such efforts. (It should be noted that the findings cited by the commenter are contained in an OSMRE report entitled *Study On Tribal Capability To Assume Regulatory Primacy* which was released in final form in February 1988. The report examined and evaluated the capabilities of the three coal-producing tribes [Crow, Hopi, and Navajo] to assume potential or hypothetical surface coal mining regulatory duties on Indian lands, in order to determine the success and future direction of Title V funding cooperative agreements with the three tribes.) This commenter further contended that the proposal was neither required by law, nor compatible with the Administration's Indian policy. Another commenter maintained that OSMRE had overlooked the intent of legislation such as the Indian Self-Determination and Education Assistance Act of 1975, 25 U.S.C. 450 *et seq.*, in developing agency regulations and policy, and that the Secretary had violated the self-determination policy by negotiating and entering into settlement agreements "that affect the Tribe's vital interests on surface mining."

OSMRE disagrees with these comments. Regardless of the tribes' abilities to regulate surface coal mining activities on their lands, and regardless of previous or ongoing efforts to develop those abilities, OSMRE is and will continue to be the sole regulatory authority on Indian lands pending enactment of section 710 legislation and tribal assumption of primacy. Section 710 requires the Secretary to ensure compliance with SMCRA on Indian lands. Consistent with this mandate, the clarification emphasizes that OSMRE is the sole designated regulatory authority on Indian lands. OSMRE recognizes that greater tribal self-determination is an important policy goal of the Department and this Administration consistent with the provisions of the Indian Self-Determination and Education Assistance Act, as amended. However, the attainment of that goal must be compatible with the existing statutory

requirements governing mineral development on Indian lands, including the Secretary's obligation under section 710 of SMCRA to regulate surface coal mining operations on such lands. OSMRE notes that the Indian Self-Determination and Education Assistance Act was recently amended by the Indian Self-Determination and Education Assistance Act Amendments of 1988, Pub. L. 100-472, but considers the implementation and interpretation of that legislation outside the scope of this rulemaking.

One commenter opposed the designation of OSMRE as the sole regulatory authority on Indian lands on the grounds that it would exclude the tribes from the regulatory process and could deprive them of the ability to impose revenue-generating taxes on surface coal mining activities conducted on reservation lands.

OSMRE disagrees with this comment. As the regulatory authority on Indian lands, OSMRE is required by its own regulations at 30 CFR Part 750 to include the affected Indian tribes in the permitting and inspection and enforcement processes. OSMRE must consult with the affected tribe regarding special requirements relating to the protection of non-coal resources of the area affected by surface coal mining and reclamation operations, and assure operator compliance with such special requirements, pursuant to 30 CFR 750.6. The regulations at 30 CFR 750.18 provide for tribal participation in the inspection and enforcement process on Indian lands. Clarifying the OSMRE is the SMCRA regulatory authority on Indian lands in no way affects the tribes' authority to levy taxes on coal mining operations located on lands under their jurisdiction.

Clarification of Jurisdictional Status of Allotted Lands

The February 10, 1988, proposed rulemaking included a clarification regarding the jurisdictional status of individual Indian allotments located outside the boundaries of Federal Indian reservations. The clarification was published pursuant to the *New Mexico* and *NCA/AMC* settlement agreements to amend a misstatement contained in the September 28, 1984, preamble to 30 CFR Part 750 wherein the applicability of the Federal program for Indian lands was described as including "all lands within the exterior boundaries of Indian reservations, *allotted lands*, and all lands where either the surface or minerals are held in trust for or supervised by an Indian tribe or individual Indians" (emphasis added) (49 FR 38463).

As explained in the preamble to the February 10, 1988, proposed rule, the inclusion of lands outside the reservation and not held in trust for or supervised by an Indian tribe was unintentional and was subsequently recognized by OSMRE to exceed the scope of the statutory definition of "Indian lands" in section 701(9) of SMCRA. Thus, OSMRE wishes to clarify that for purposes of surface coal mining regulatory jurisdiction, off-reservation allotted lands are include in the SMCRA definition of Indian lands only if an interest in the surface or mineral estate is held in trust for or supervised by an Indian tribe.

Two commenters maintained that OSMRE should await the outcome of pending litigation involving jurisdictional issues on Indian lands before publishing a final clarification regarding surface coal mining regulatory jurisdiction on trust allotments. One of the commenters specifically cited two cases (*Energy and Minerals Dept. v. U.S. Dept. of the Interior*, 820 F.2d 441 (D.C. Cir. 1987) (hereafter, "*Energy and Minerals*") which was remanded in part to the District Court for the District of New Mexico; and *Pittsburgh & Midway Coal Mining Co. v. OSMRE and Navajo Tribe*, IBLA No. 87-577, (hereafter, "*Pittsburgh & Midway*", which is fully briefed and awaiting a decision by the Interior Board of Land Appeals), and contended that "the issue of whether any allotments held in trust for either tribes or individual Indians can be excluded from 'Indian lands' is squarely at issue" in those two cases.

OSMRE disagrees that the final clarification should be indefinitely delayed pending the issuance of final administrative or court decisions in the referenced case. The *Energy and Minerals* case concerns a reservation boundary dispute, and does not involve interpretation of SMCRA. The clarification is fully consistent with the position taken by OSMRE in the *Pittsburgh & Midway* case as to what constitutes Indian lands for purposes of surface coal mining regulation, and is also consistent with the statutory definition of "Indian lands" at section 701(9) of SMCRA. Furthermore, the clarification is necessary to resolve any remaining ambiguity concerning the applicability of the Federal program for Indian lands to individual Indian allotments that may have resulted from the inaccurate statement contained in the 1984 preamble to 30 CFR Part 750. OSMRE believes that it is more appropriate that this jurisdictional issue be addressed by rulemaking, which provides opportunity for widespread

public participation and the fullest practical discussion of issues, rather than by quasi-judicial proceedings in which only parties and intervenors have standing and which apply only to the lands and facts at issue in the proceeding. This rulemaking is intended in part to provide guidance to IBLA concerning the application and interpretation of the SMCRA definition of Indian lands.

Two commenters opposed the clarification, alleging that, if adopted, the clarification would unlawfully allow State regulation on Indian trust allotments. One of the commenters cited section 710(h) of SMCRA, which states "[t]hat nothing in this Act shall change the existing jurisdictional status of Indian Lands," as clear evidence of Congressional intent to preclude State control of Indians and Indian lands. The commenter further cited the decision rendered in *Montana v. Clark* (749 F.2d 740 (D.C. Cir. 1985), cert. den. 474 U.S. 919 (1985)), (hereafter, "*Montana*") as evidence that trust allotments must be considered as Indian lands under SMCRA. *Montana* involved a challenge to OSMRE's regulations at 30 CFR 872.11(b)(3), which implement the provisions of section 402(g) of SMCRA concerning the allocation of abandoned mine land monies collected in States and Indian reservations.

The commenter maintained that the *Montana* court, in upholding the substitution of the term "Indian lands" for "Indian reservation" in the challenged regulation, equated the term "Indian lands" with all lands in which Indians have an interest. Thus, the commenter reasoned that off-reservation trust allotments plainly qualify as Indian lands.

OSMRE disagrees that the clarification would unlawfully allow State regulation of surface coal mining operations on Indian allotments. Section 710 applies to "Indian lands," and given the definition of Indian lands at section 701(9), is applicable to lands owned by or held in trust for individual Indians only if an interest in those lands is also held in trust for or supervised by an Indian tribe. SMCRA does not preclude State regulation of surface coal mining operations located on off-reservation individual trust allotments if those allotments are not held in trust for or supervised by a tribe, because such allotments would not be considered Indian lands under the Act.

OSMRE disagrees with the commenter's interpretation of the *Montana* decision and views it as a misconstrued reading of the court's holding. The commenter claims that the court, in reaching its decision, equated

the term "Indian lands" with the phrase "all lands in which Indians have an interest." This is not correct. In examining the legislative history of SMCRA, the court found "overwhelming evidence" of Congressional intent to temporarily "postpone determining the locus of regulatory authority over all lands in which Indians have an interest." *Montana v. Clark*, supra, 749 F.2d at 752 (emphasis added). The court explicitly recognized that an exhaustive treatment of SMCRA jurisdiction for the variety of off-reservation land ownership patterns involving Indian interests was intentionally set aside by Congress for future consideration. The court did not address the issue of whether off-reservation trust allotments are Indian lands for purposes of SMCRA regulation.

One commenter maintained that all lands allotted to members of a specified tribe must be considered "Indian lands" pursuant to SMCRA for several additional reasons. The commenter gave incomplete or incorrect citations to State statutory provisions and cited several court cases for the proposition that both New Mexico and Arizona have expressly disclaimed all jurisdiction over such trust lands. The commenter further maintained that "as a purely factual matter," all such allotments are and have been supervised by the tribe, and that the tribe is acquiring and will continue to acquire interests in the allotments under the amended Indian Land Consolidation Act, 25 U.S.C. 2201 et seq. Finally, the commenter stated that thousands of such allotments are within reservation boundaries and/or are categorized by BIA as "reservation allotments."

OSMRE considers the comment regarding the States' complete renunciation of jurisdiction over all trust allotments as unsupported and irrelevant to the merits of this rulemaking. None of the materials which were cited with sufficient specificity that they could be located, supported the cited proposition. All of the referenced State cases concerned reservation lands, which are included in the SMCRA definition of Indian lands. Therefore, none of these cases support the comment insofar as it refers to lands not included in the SMCRA definition. Even if such renunciation by a State had taken place, other procedures for dealing with any such hypothetical situation are set forth in 30 CFR, including parts 732, 733, and 736. Renunciation *per se* could not serve as a basis for treating such lands as Indian lands.

OSMRE also has no evidence to support the commenter's assertion that

all individual Indian allotments are and have been supervised by the tribe, nor has the commenter provided any information supporting this statement. However, OSMRE recognizes that tribal supervision of allotments may be shown to exist in some cases, and the clarification is consistent with that premise. The determination of tribal supervision over off-reservation lands will be made on a case-by-case basis.

Finally, the commenter's claim that many allotments are within reservation boundaries and/or categorized as "reservation allotments" is vague and unclear. OSMRE has consistently interpreted and continues to interpret SMCRA section 701(9) to provide that any lands located within the recognized boundaries of a Federal Indian reservation are Indian lands under SMCRA. The commenter provides no information as to the number, extent, or geographic location of "reservation allotments" which are located outside the recognized boundaries of Federal Indian reservations, nor is the term "reservation allotments" defined or described. Thus, any attempt by OSMRE to determine the validity or relevance of this comment would be purely speculative.

One commenter objected to the clarification on the grounds that it "suggests that any mineral interests underlying tribal trust surface ownership would be subject to tribal surface regulation," and that it does not explain the meaning of the phrase "supervised by" [an Indian tribe] as that term is used in SMCRA and the implementing regulations. The commenter recommended that OSMRE limit the definition of "Indian lands" to "recognized reservation lands and those lands held in trust for a tribe by the United States that do not overlie non-Indian ownership of minerals," and exclude any fee lands, including split estates. The commenter maintained that, absent express Federal delegation, Indian tribes lack inherent authority to regulate activities outside reservation boundaries, including the assertion of SMCRA regulatory jurisdiction over off-reservation fee lands. The commenter apprised OSMRE of pending litigation challenging tribal jurisdiction for taxation purposes in off-reservation areas, and suggested that OSMRE consider the consequences of the clarification in light of a Bureau of Land Management (BLM) land exchange proposal designed to consolidate tribal trust lands in New Mexico. The commenter contended that defining "Indian lands" so as to subject private fee minerals to eventual Indian

regulatory control might constitute a "taking without compensation." Finally, as a matter of information, the commenter cited pending litigation involving tribal claims that certain lands located outside the tribe's recognized reservation boundaries are part of the reservation proper (*Blatchford v. Sullivan*, Tenth Circuit Court of Appeals Case No. 87-1547), (hereafter, "*Blatchford*").

OSMRE rejects the commenter's proposed definition of "Indian lands" as overly restrictive and inconsistent with SMCRA. With respect to off-reservation areas, the statutory definition at section 701(9) of SMCRA includes "all lands including mineral interests held in trust for or supervised by an Indian tribe." It is OSMRE's position that the SMCRA definition encompasses not only the unsevered tribal trust estates included in the commenter's proposed definition, but also severed tribal trust lands, and lands supervised by a tribe.

OSMRE regards the comments concerning the ongoing legal challenges to tribal regulatory and taxation powers outside reservation boundaries, and concerning BLM's land exchange proposal, as irrelevant. This rulemaking does not encompass such issues or proposals, but merely seeks to clarify the geographic extent of OSMRE's regulatory jurisdiction under SMCRA concerning Indian lands. This clarification provides that off-reservation allotments are included in the SMCRA definition of Indian lands only if an interest in the surface or mineral estate is held in trust for or supervised by an Indian tribe. The *Blatchford* case cited by the commenter involves the issue of whether a particular area is part of the Navajo Reservation. The resolution of that case would not affect this rulemaking since the case has nothing to do with allotments.

OSMRE regards the comments concerning tribal surface regulation and possible compensable takings if the definition were applied by a hypothetical tribal regulatory authority at some unspecified future time, to be irrelevant to this rulemaking. The purpose of defining Indian lands is to clarify how this term will be applied by OSMRE as the sole regulatory authority under SMCRA. OSMRE cannot speculate as to when or under what specific legislative language Indian tribes may eventually assume regulatory responsibility if section 710(a) legislation is passed.

OSMRE notes the comment that the meaning of the phrase "supervised by" [an Indian tribe] should be clarified. However, a dispositive policy

concerning the concept of tribal supervision of individual trust allotments and other forms of tribal interests in land would have to encompass a highly complex set of potential issues and fact patterns, and is beyond the scope and purpose of this rulemaking. As stated earlier in this preamble, OSMRE will make such determinations on a case-by-case basis if and when the need arises.

C. Specific Regulatory Changes and Comments

25 CFR Part 200

Section 200.11 Incorporation of Coal Lease Terms and Conditions

In the February 1988 rulemaking proposal, OSMRE proposed to amend the regulations at 30 CFR 750.20 (a) and (b) concerning the incorporation of coal lease terms and conditions on Indian lands. Upon review, it has been jointly decided by OSMRE and BIA to transfer the rules from OSMRE's regulatory program at 30 CFR Chapter VII to BIA's regulatory program at 25 CFR Chapter 1, Subchapter I. The regulations at 25 CFR Chapter 1, Subchapter I govern leasing and development of energy and mineral resources on Indian lands and place primary responsibility for approval and management of prospecting and leasing activities with BIA. Thus, the recodification of the rules implements existing Departmental organization and performance of responsibilities concerning Indian lands, because it reflects the lead role of BIA in the approval and amendment of coal leases on Indian lands.

In the proposed rule, the regulations at 30 CFR 750.20 (a) and (b) were contained within a section entitled "Incorporation of coal lease terms and conditions." The rules have been recodified within 25 CFR Subchapter I and a new part has been added as follows: Part 200—Terms and Conditions: Coal Leases. The rules have been redesignated as 25 CFR 200.11 (a) and (b) under the section heading "Incorporation of coal lease terms and conditions."

The regulations at 25 CFR 200.11 (a) and (b) implement sections 710 (d) and (e) of SMCRA, respectively, wherein the Secretary is directed to incorporate the requirements of the applicable provisions of SMCRA, and tribe-requested terms and conditions, into leases of coal on Indian lands.

Section 200.11(a)

The rule at 25 CFR 200.11(a) (formerly 30 CFR 750.20(a)) provides for the incorporation of the SMCRA-compliance provision into existing and new leases

of coal on Indian lands at the time such leases are issued, renewed, renegotiated, or readjusted, as applicable.

One tribal commenter maintained that deferring the inclusion of the proposed lease provision for existing leases until renewal, renegotiation, or readjustment, was contrary to law and Congressional intent in that it further delayed the action beyond the thirty-month time limit specified in SMCRA. The commenter further claimed that the rule change was arbitrary and capricious on the grounds that OSMRE had failed to explain why the new rule was preferable to the previous regulation. The commenter also contended that the rule change constituted a violation of the Secretary's trust responsibility since neither OSMRE nor BIA had consulted with the tribe prior to entering into the settlement agreement where the proposed rule change was first contemplated. Finally, the commenter raised a question regarding the enforceability of SMCRA section 710(d) standards for existing Indian coal leases should the rule change be implemented.

OSMRE disagrees that the rule change is contrary to law and Congressional intent. Section 710(d) of SMCRA provides that "[o]n and after thirty months from the enactment of this Act, all surface coal mining operations on Indian lands shall comply with requirements at least as stringent as those imposed by [applicable provisions of SMCRA] and the Secretary shall incorporate the requirements of such provisions in all existing and new leases issued for coal on Indian lands" (emphasis added). This language does not specify the mechanism by which the requirement is to be implemented with respect to new and existing leases. The Secretary has achieved the required result by applying these provisions by operation of law under 30 CFR Part 750 and, prior to the adoption of Part 750, under SMCRA itself, to all surface coal mining operations on Indian lands (30 CFR 750.11, 750.12, 750.16). Thus, there has been no delay in applying the requirement to all existing operations involving coal leases on Indian lands. The new rule establishes an orderly and equitable process for implementing the Secretary's obligations under section 710(d) to incorporate appropriate provisions in both existing and new leases of coal on Indian lands. Although the required result was already achieved by operation of law, the absence in the previous rule of such a process for incorporating the required provisions had raised questions regarding the equitable impact of the

provision and its effect on existing leases of coal on Indian lands. This rule is intended to address those concerns.

OSMRE disagrees with the commenter's assertions that proposal of the rule change was arbitrary and capricious and violated the Secretary's trust responsibilities. OSMRE proposed the rule change pursuant to the *NCA/AMC* settlement agreement, in response to objections raised by the complainant concerning the unilateral amendment of existing leases.

Non-parties to the agreement, though not involved in the settlement negotiations, were afforded ample opportunity to comment on the proposed rule change through the public comment process.

Finally, the commenter's concern regarding the enforceability of section 710(d) standards for existing leases pending incorporation of the SMCRA-compliance provision into such leases is without merit. OSMRE addressed this issue in the preamble to the proposed rule wherein it stated that all surface coal mining operations on Indian lands are subject to the requirements of section 710 of SMCRA and 30 CFR Part 750 by operation of law. This holds true regardless of whether the leases associated with such operations have been amended to include the SMCRA-compliance provision mandated by section 710(d).

Section 200.11(b)

The rule adopted today at 25 CFR 200.11(b) (formerly 30 CFR 750.20(b)) provides for the incorporation of SMCRA-related terms and conditions, as requested in writing by the lessor Indian tribe, into post-SMCRA leases of coal on Indian lands. The rule specifies that these terms and conditions shall be included when such leases are issued, renewed, renegotiated, or readjusted, as applicable.

One commenter objected to the proposed rule change at 25 CFR 200.11(b) as contrary to SMCRA in that it would limit the scope of tribe-requested terms and conditions to SMCRA-related concerns and would allow their incorporation into existing leases only at the time of lease renewal, renegotiation, or readjustment.

OSMRE disagrees that the rule change is contrary to SMCRA. Although section 710(e) does not specifically state that tribe-requested terms and conditions be related to SMCRA, OSMRE believes that section 710(e) was not intended to encompass terms and conditions unrelated to SMCRA, since the mechanisms for incorporating other terms and conditions were in place prior to the enactment of SMCRA. The

requirement that section 710(e) terms and conditions be incorporated into existing leases only at specific, predetermined times is beneficial in that it minimizes the likelihood of frequent and unpredictable amendments to existing agreements. OSMRE believes this is necessary to implement section 710(e) in an orderly and reasonable manner with respect to existing contracts and leases. Moreover, the leasing and lease readjustment processes are not the tribes' sole means of ensuring operator compliance with special tribal requirements related to SMCRA. The rules at 30 CFR 750.6 provide an opportunity for the tribes to advise OSMRE and BIA of special requirements relating to the protection of non-coal resources of the area affected by surface coal mining and reclamation operations during the permitting process. As the regulatory authority on Indian lands, OSMRE must assure operator compliance with such special requirements.

One commenter expressed concern that the revised rule could be misinterpreted as restricting lease readjustment solely to SMCRA-related purposes and recommended that the rule be clarified accordingly.

As a point of clarification, the implementation of the rule will in no way affect the tribes' ability to continue to request the inclusion of non-SMCRA-related terms and conditions in new and existing coal leases on Indian lands pursuant to other existing statutes and regulations governing the leasing process on such lands.

One commenter maintained that the revised rule would give the lessee "veto power" over the terms and conditions requested by a tribe, or would force the tribe to compromise on proposed lease amendments.

OSMRE disagrees. Section 710(e) of SMCRA clearly empowers the Secretary to incorporate tribe-requested terms and conditions into leases of coal on Indian lands, and the lessee must comply.

One commenter contended that OSMRE breached its due process and fiduciary trust responsibilities by failing to consult with the tribe prior to entering into the settlement agreement which contained the provision affecting the tribe's rights under section 710(e).

OSMRE considers this comment beyond the scope of this rulemaking, because it concerns general legal and procedural issues relating to a previous action by the Department, rather than the merits of the rule itself. OSMRE reiterates that it has provided full opportunity to comment on the rulemaking implementing the settlement, through the public comment process.

The commenter further claimed that, by limiting the scope and time periods for incorporation of section 710(e) terms and conditions, OSMRE breached its trust duty to assist the tribe in developing its powers of self-government, and impaired the tribe's ability to achieve its section 710(e) objectives and maximize its economic benefits during the lease renegotiation and renewal process.

OSMRE disagrees. The rule change does not affect the Department's commitment to continued development of tribal self-governing powers, nor does it undermine the tribe's ability to negotiate leases for maximum economic gain. All coal lease terms and conditions on Indian lands, including those related to section 710 of SMCRA, are ultimately subject to Secretarial approval, thereby ensuring that tribal economic and environmental interests are protected. 30 CFR Part 750

Section 750.12 Permit Applications

Section 750.12(d)(2) describes the information that must be included in the permit application package (PAP) for a surface coal mining operation on Indian lands in order to assure compliance with Federal laws other than SMCRA. The rule at 30 CFR 750.12(d)(2)(v) is amended by deleting the reference to the American Indian Religious Freedom Act (AIRFA), 42 U.S.C. 1996, as a specific permit application information requirement.

The final rule adopted today continues to require that the permit application contain a description of compliance with Federal laws aimed at protecting cultural resources on Indian lands. The rule change does not eliminate the need for AIRFA compliance for surface coal mining operations on Indian lands, but transfers the primary responsibility from the applicant to OSMRE. This is consistent with AIRFA provisions requiring the various Federal departments and agencies to implement policies and procedures to protect and preserve Native American religious cultural rights and practices. OSMRE fulfills this obligation through the rule at 30 CFR 750.6(a)(4). That provision requires OSMRE to assure operator compliance with appropriate special requirements relating to the protection of non-coal resources of the area affected by surface coal mining and reclamation operations, in consultation with BIA and the affected tribe.

Two commenters objected to the proposed rule change. One commenter claimed that the revised rule would eliminate the need for an applicant to

deal directly with the affected tribes regarding the presence or absence of cultural/religious sites and resources on the proposed permit area, and that it would impose no obligation upon OSMRE to resolve AIRFA-related issues. Another commenter acknowledged that while AIRFA compliance is ultimately a Federal responsibility, OSMRE should retain the option of requiring the proposed operator to conduct a survey of religious sites, claiming that the general requirements of 30 CFR 750.6(a)(4) are insufficient to ensure agency compliance with AIRFA.

OSMRE disagrees with the commenters' assertions that the existing rule at 30 CFR 750.6(a)(4) is inadequate for purposes of AIRFA compliance and that OSMRE is under no obligation to resolve AIRFA-related issues. The regulation at 30 CFR 750.6(a)(4) is broad in scope, providing for protection of all non-coal resources on Indian lands without exception, including Native American religious sites and resources. The regulation further requires OSMRE to assure operator compliance with special requirements relating to the protection of such resources. This could include operator-conducted surveys of religious sites, and could involve direct communications between the operator and the affected tribe, as necessary to ensure compliance with AIRFA.

One commenter maintained that the rule change could jeopardize the confidentiality of Native American cultural/religious sites and resources by placing sensitive information in the hands of government agencies subject to Freedom of Information Act (FOIA) requests, and urged OSMRE to propose a new rule requiring the applicant to address AIRFA-related issues in the PAP, in consultation with the tribal land owners.

OSMRE regards this comment as irrelevant to whether the proposal should be adopted, because the same concern will exist under this rule or the previous rule. The rule change merely reflects the fact that OSMRE, rather than the applicant, is ultimately responsible for ensuring AIRFA compliance on Indian lands. OSMRE recognizes the sensitive nature of AIRFA-related information and its significance to the Indian tribes. However, the determination as to whether such information would be exempt from disclosure under FOIA, if it were submitted to OSMRE, is not affected by this rulemaking, and is properly addressed outside of this rulemaking action.

III. Procedural Matters

Federal Paperwork Reduction Act

The rule does not contain information collection requirements that require approval by the Office of Management and Budget under 44 U.S.C. 3501 *et seq.*

Executive Order 12291 and Regulatory Flexibility Act

The DOI has determined that this document is not a major rule under the criteria of Executive Order 12291 (February 17, 1981) and certifies that it will not have significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* This rule affects a relatively small number of surface coal mining operations. The rule does not distinguish between small and large entities. The economic effects of the proposed rules are estimated to be minor and no incremental economic effects are anticipated as a result of the rule.

National Environmental Policy Act

OSMRE has prepared an environmental assessment (EA) and has made a finding that the final rule will not significantly affect the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4332(2)(C). The EA is on file in the OSMRE Administrative Record, Room 5131, 1100 L Street NW., Washington, DC.

Author

The principal author of this rule is Suzanne M. Hudak, Branch of Federal and Indian Programs, OSMRE, 1951 Constitution Avenue NW., Washington, DC 20240; Telephone: (202) 343-4540.

List of Subjects

25 CFR Part 200

Environmental protection, Indian lands, Mineral resources, Mines.

30 CFR 750

Indian-lands, Reporting and recordkeeping requirements, Surface mining, Surface Mining Reclamation and Enforcement Office.

Accordingly, 25 CFR Part 200 is added and 30 CFR Part 750 is amended as set forth herein.

Dated: April 21, 1989.

Michael A. Poling,

Deputy Assistant Secretary—Land and Minerals Management.

Dated: April 24, 1989.

W. P. Ragsdale,

Assistant Secretary—Indian Affairs.

1. Part 200 is added to 25 CFR Chapter 1, Subchapter I to read as follows:

PART 200—TERMS AND CONDITIONS: COAL LEASES

Sec.

200.1–200.10 [Reserved]

200.11 Incorporation of coal lease terms and conditions.

Authority: Pub. L. 95–87 (30 U.S.C. 1201 *et seq.*), as amended.

§§ 200.1–200.10 [Reserved]

§ 200.11 Incorporation of coal lease terms and conditions.

(a) All leases of coal on Indian lands, as defined in section 216.101 of this chapter, issued by the Secretary, will include at the time of issuance, renewal, renegotiation, or readjustment, as applicable, the following provision:

The Lessee shall comply with all applicable requirements of the Surface Mining Control and Reclamation Act of 1977, and all regulations promulgated thereunder, including those codified at 30 CFR Part 750.

(b) With respect to leases of coal on Indian lands issued by the Secretary after August 3, 1977, the Secretary shall, at the time of issuance, renewal, renegotiation, or readjustment, as applicable, include and enforce in such leases, terms and conditions related to the Surface Mining Control and Reclamation Act of 1977, as requested by the lessor Indian tribe in writing.

PART 750—REQUIREMENTS FOR SURFACE COAL MINING AND RECLAMATION OPERATIONS ON INDIAN LANDS

2. The authority citation for Part 750 is revised to read as follows:

Authority: Pub. L. 95–87 (30 U.S.C. 1201 *et seq.*, as amended); and Pub. L. 100–34.

3. Section 750.12 is amended by revising paragraph (d)(2)(v) to read as follows:

§ 750.12 Permit applications.

* * *

(d) * * *

(2) * * *

(v) A description of compliance with Federal laws aimed at protecting cultural resources on Indian lands.

* * *

§ 750.20 [Removed]

4. Section 750.20 is removed.

[FR Doc. 89–12062 Filed 5–19–89; 8:45 am]

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Federal Register

**Monday
May 22, 1989**

Part V

Department of Housing and Urban Development

**Office of the Assistant Secretary for
Housing—Federal Housing Commissioner**

24 CFR Part 888

**Section 8 Housing Assistance Payments
Program; Fair Market Rents for New
Construction and Substantial
Rehabilitation—All Market Areas;
Proposed Rule**

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of Assistant Secretary for Housing—Federal Housing Commissioner

24 CFR Part 888

[Docket No. N-89-1961; FR-2634]

Section 8 Housing Assistance Payments Program; Fair Market Rents for New Construction and Substantial Rehabilitation—All Market Areas

AGENCY: Office of Assistant Secretary for Housing—Federal Housing Commissioner, HUD.

ACTION: Proposed notice.

SUMMARY: Section 8(c)(1) of the United States Housing Act of 1937 requires the Secretary to establish Fair Market Rents (FMRs) periodically, but not less frequently than annually. This document proposes Fiscal Year 1988 FMRs for the Section 8 New Construction Program and the section 8 Substantial Rehabilitation Program. These proposed FMRs are based primarily on the level of rentals paid for recently completed or newly-constructed dwelling units of modest design within each market area as determined by HUD Field Office staff. They also reflect the Department's cost containment efforts in relation to housing assistance provided in the Section 8 New Construction and Substantial Rehabilitation Programs.

DATE: Comment due date: June 21, 1989.

ADDRESS: Interested persons are invited to submit comments regarding this rule to the Rules Docket Clerk, Office of General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410. Communications should refer to the above docket number and title. A copy of each communication submitted will be available for public inspection during regular business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Edward M. Winiarski, Chief Appraiser, Valuation Branch, Technical Support Division, Office of Insured Multifamily Housing Development, 451 Seventh Street SW., Washington, DC 20410-8000, telephone (202) 426-7624. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION:

Background

Section 8 of the United States Housing Act of 1937 (42 U.S.C. 1437f) (the Act) authorizes a system of housing assistance payments to aid lower income families in renting decent, safe, and sanitary housing. These programs,

known collectively as the section 8 Housing Assistance Payments Program, provide assistance payments for lower income families for a variety of housing options, including new construction and substantial rehabilitation.

Under these programs, HUD or public housing agencies (PHAs) make rental assistance payments on behalf of eligible families to owners. Total housing expense represents the total monthly cost of housing an eligible family, which is the sum of the contract rent and any utility allowance for the assisted unit occupied by the family. Where the unit is leased to an eligible family, the housing assistance payment represents the difference between the total housing expense and the total family contribution. Initial contract rents plus any allowances for utilities generally may not exceed area-wide FMRs established by the Department.

Section 8(c)(1) of the Act states that the Secretary shall establish FMRs periodically, but not less frequently than annually. Section 8(c)(1) further provides that the Department shall publish FMRs in the *Federal Register*, with reasonable time for public comment, and that the FMRs will become effective upon their publication in final form in the *Federal Register*.

The Department determined that publication by rulemaking is not necessary and has delayed timely publication of the FMRs. Accordingly, the Department published a final rule on September 25, 1985 (see 50 FR 38791) changing the FMR publication procedure to a Notice procedure, effective October 30, 1985. Under the Notice procedure, FMRs are published in proposed form in a Notice with a minimum of 30 days for comment and then are published in final form in a Notice for immediate effect. This means FMRs may be effective the same day they appear in final form in the *Federal Register*.

This Notice

Today's document proposes the FY 1988 FMRs for new construction and substantial rehabilitation that apply to Section 8 New Construction under Part 880, Substantial Rehabilitation under Part 881, Housing Finance and Development Agencies under Part 883, New Construction Set-Aside for Section 515 Rural Rental Housing Projects under Part 884, Housing for the Elderly and Handicapped under Part 885, and Disposition of HUD-owned projects under Part 886, Subpart C.

The FMRs are based primarily on the levels of rent paid for recently completed or newly constructed dwelling units of modest design within each market area, as determined by

HUD Field Office staff, trended ahead to October 1, 1989, to allow time for the period of construction or rehabilitation of the projects involved. They are estimates of rentals that prospective tenants who are not receiving Federal rent subsidies would be willing and able to pay for recently completed or newly constructed dwelling units of modest design, with suitable amenities. They do not necessarily represent rents needed to support construction and operating costs.

This Notice includes FMRs for 0, 1, 2, 3 and 4 or more bedroom units in five structural categories (detached, semi-detached/row, walkup, 2-4-story elevator and 5-plus-story elevator buildings). Construction or rehabilitation of elevator projects for families with children is prohibited unless there is no practical alternative. FMRs for family units in elevator structures are proposed for appropriate market areas; however, the determination that there is "no practical alternative" must be made on a project-by-project basis. HUD regulations also provide that high-rise elevator projects for the elderly may be approved only if HUD determines that high-rise construction is appropriate after taking into account land costs, safety and security factors.

With the publication for effect in the *Federal Register*, these FMRs will be made retroactive to September 15, 1988.

Applicability

A. For section 202 projects with section 8 assistance, beginning with Federal Fiscal Year 1986 selections, the Fair Market Rents (FMRs) on which the contract rents will be based will be the Fair Market Rents applicable to projects for the elderly or handicapped published and in effect on the date of the Notice of Section 202 Fund Reservation. Providing that the project meets cost containment, these FMRs may be increased by up to 10 percent with the approval of the Field Office Manager or by up to 20 percent with the approval of the Assistant Secretary for Housing-Federal Housing Commissioner.

B. For section 202 projects with section 8 assistance selected during Federal Fiscal Year 1985 and earlier, and for section 8 projects under the section 8 New Construction and Substantial Rehabilitation Program, the applicable Fair Market Rents are those in effect on the date that the proposal or application for assistance was submitted to HUD (or in the case of assistance under Part 884, by the Farmers Home Administration (FmHA), and in the case of assistance under Part

883, by the State Agency). The following exceptions apply:

1. For all the projects where the FMRs are increased after the completion date of a processing stage, the increased FMRs will apply to all subsequent processing in reviewing contract rents and utilities. (This does not apply when the borrower agrees to limit the rents to 110 percent of the FMRs in effect at the time of fund reservation in order to enter into a negotiated construction contract, as permitted under the section 202 competitive bid procedure.) The decision concerning appropriate FMRs to use in project processing will be based upon an entire schedule rather than selectively choosing the highest unit rents from the currently effective FMR schedule or a previously published schedule for that area.

2. For all projects where the FMRs are decreased after the completion date of a processing stage, the applicable FMR will be the higher of:

- The FMR set forth in Schedule A of the annual publication of FMRs or
- The FMR set forth in a previously published schedule that was in effect at the time that the application was submitted.

Interested persons will have a 30-day comment period after publication of this Notice in which to submit comments on the revised FMRs contained in Schedule A. All comments submitted during this period will be carefully considered and FMRs will be revised as appropriate.

Proposals may be submitted that involve combinations of structural types and unit sizes for which FMRs are not proposed in this document or for which there are no FMRs already in effect. However, no proposal of this type will be approved until the FMRs in this Notice have been published for effect.

In addition, interested persons may submit comments or other information (with adequate documentation) on FMRs at any time, even after expiration of the 30-day comment period provided in this Notice. Any data submitted will

be considered in initiating interim revisions to the FMR schedules. In order to expedite consideration of your submission, please send a copy to the HUD Field Office having jurisdiction for the market area involved, as well as to the Rules Docket Clerk.

Other Information

HUD regulations in 24 CFR Part 50, implementing section 102(2)(C) of the National Environmental Policy Act of 1969, contain categorical exclusions from their requirements for the actions, activities, and programs specified in § 50.20. Since the FMRs proposed in this Notice are within the exclusion set forth in § 50.20(1), no environmental assessment is required, and no environmental finding has been prepared.

The Catalog of Federal Domestic Assistance Program number and title for the activities covered by this Notice are 14.156, Lower Housing Assistance Program (section 8).

Accordingly, the Department proposes to revise Schedule A of 24 CFR Part 888 to read as set forth below.

Authority: Section 8(c)(1), U.S. Housing Act of 1937, 42 U.S.C. 1437f; Section 7(d), Department of HUD Act, 42 U.S.C. 3535(d).

Date: May 5, 1989.

James E. Schoenberger,
General Deputy Assistant Secretary for Housing-Federal Housing Commissioner.

Schedule A—Proposed Fair Market Rents for New Construction and Substantial Rehabilitation.

Special Category Computations

- FMRs for dwelling units designed for the elderly or handicapped are those for appropriate size units, not to exceed two bedrooms for the elderly, multiplied by 1.05.
- Congregate housing dwelling unit FMRs are the same as for noncongregate units.
- Single-room occupancy dwelling unit FMRs (applicable only for substantial rehabilitation projects) are

75 percent of those for zero-bedroom units of the same structural type.

4. FMRs for living units in a group home developed with a direct loan under section 202 of the Housing Act of 1959 are those for zero-bedroom or a one bedroom unit of the walkup structural type (or if the group home contains an elevator, of the 2-4-story elevator structural type). Each living unit in a group home is composed of a bedroom plus a proportionate part of common living space ordinarily included in a living unit. One-bedroom FMRs may be applied only when the bedroom space plus the proportionate part of the common space totals at least 450 square feet.

5. Manufactured home (unit and space) FMRs shall be 95 percent of the rents for detached units of the appropriate bedroom size (except that where a manufactured home FMR is specified in the schedule for an area, the amount in the schedule shall be the FMR).

6. FMRs for manufactured home spaces in newly-constructed or substantially rehabilitated manufactured home parks are determined by multiplying by 1.25 the FMR for the spaces published for the Existing Housing Program. (For currently effective FMRs for the Existing Housing Program, see *Federal Register* documents published on April 29, 1987 (52 FR 15630), March 18, 1988 (53 FR 8888), and September 21, 1988 (53 FR 36700).

Rent Computations

All rents computed in accordance with this note shall be rounded down to the nearest whole dollar.

Similarly, all FMRs increased by up to 10 percent with the approval of the HUD Field Office Manager, or by up to 20 percent with the approval of the HUD Assistant Secretary for Housing should have the result rounded down to the nearest whole dollar.

BILLING CODE 4210-27-M

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 1

BOSTON REGIONAL OFFICE

STRUCTURE TYPE	MARKET: BOSTON NUMBER OF BEDROOMS					MARKET: WORCESTER NUMBER OF BEDROOMS					MARKET: FALL RIVER NUMBER OF BEDROOMS						
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+		
DETACHED	683	689	809	954	1057	604	611	751	876	1005	601	607	768	931	943		
SEMI-DETACHED/ROW	594	671	804	887	1007	545	580	728	826	949	565	586	725	830	871		
WALKUP	616	748	865	1107	1209	556	639	766			585	607	741				
ELEVATOR 2-4 STY	621	753	870	1208	1334	584	673	805			590	639	774				
ELEVATOR 5+ STY																	
MANUFACTURED HOME																	
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE				
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 1

HARTFORD OFFICE

MARKET: HARTFORD			MARKET: NEW HAVEN			MARKET: NEW LONDON			MARKET: NEW MILFORD		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	584 598 690 781 805		556 579 652 768 826			514 519 665 742 791			538 562 648 723 742		
WALKUP	496 576 655 740 764		495 554 628 716 740			463 497 654 735 762			467 542 616 694 718		
ELEVATOR 2-4 STY	503 585 661		509 570 668			468 513 679			472 549 621		
ELEVATOR 5+ STY	520 636 732		527 629 744			494 567 700			488 597 689		
MANUFACTURED HOME											
	EFFECTIVE DATE 100187		EFFECTIVE DATE 100187			EFFECTIVE DATE 100187			EFFECTIVE DATE 100187		
	TRENDING DATE 100189		TRENDING DATE 100189			TRENDING DATE 100189			TRENDING DATE 100189		
MARKET: WINDHAM			MARKET: BRIDGEPORT			MARKET: RIDGEFIELD			MARKET: NORWICH		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	506 512 573 641 668		575 580 639 725 758			668 673 776 849 879			525 572 648 723 742		
WALKUP	419 488 547 607 625		481 557 632 703 728			557 649 738 826 850			475 553 628 695 717		
ELEVATOR 2-4 STY	444 508 559		488 584 640			567 658 745			483 561 633		
ELEVATOR 5+ STY	462 539 615		508 617 711			585 716 824			500 600 700		
MANUFACTURED HOME											
	EFFECTIVE DATE 100187		EFFECTIVE DATE 100187			EFFECTIVE DATE 100187			EFFECTIVE DATE 100187		
	TRENDING DATE 100189		TRENDING DATE 100189			TRENDING DATE 100189			TRENDING DATE 100189		

PREPARED ON 021389

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES' PROGRAMS)**

REGION 1

MANCHESTER OFFICE

STRUCTURE TYPE	MARKET: MAINE STATEWIDE					MARKET: VERMONT STATE					MARKET: NEW HAMPSHIRE ST.				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	468	595	671	766	889	513	576	679	762	860	503	561	631	724	889
SEMI-DETACHED/ROW	468	549	627	722	836	459	538	639	721	795	444	498	573	652	742
WALKUP	419	510	597	677	755	521	595	705			469	568	654		
ELEVATOR 2-4 STY	469	561	706			578	659	783			521	630	727		
ELEVATOR 5+ STY	521	626	786												
MANUFACTURED HOME															
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 1

PROVIDENCE OFFICE

STRUCTURE TYPE	MARKET: PROVIDENCE				
	NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+
DETACHED			882	1027	1149
SEMI-DETACHED/ROW	536	656	748	829	895
WALKUP	481	651	723	744	874
ELEVATOR 2-4 STY		488	646	841	
ELEVATOR 5+ STY		494	653	849	
MANUFACTURED HOME					
	EFFECTIVE DATE				100187
	TRENDED DATE				100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 2

BUFFALO OFFICE

STRUCTURE TYPE	MARKET: BUFFALO					MARKET: ELMIRA					MARKET: JAMESTOWN					MARKET: ROCHESTER				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	435	455	531	625	723	358	415	521	617	688	440	469	545	625	715	456	460	538	625	706
SEMI-DETACHED/ROW	346	410	493	579	617	310	359	472	585	663	361	424	504	579	669	354	413	496	563	635
WALKUP	454	500	663			381	465	596			442	521	640			458	521	629		
ELEVATOR 2-4 STY	494	540	702			419	503	635			481	561	679			497	561	668		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

STRUCTURE TYPE	MARKET: ALBANY					MARKET: PLATTSBURGH					MARKET: SYRACUSE					MARKET: BINGHAMTON				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	486	492	590	717	794	488	493	538	621	693	427	438	520	626	703	415	420	508	607	674
SEMI-DETACHED/ROW	420	479	562	661	751	387	424	491	575	655	341	409	498	569	655	359	410	481	565	639
WALKUP	426	516	652			432	511	621			346	454	576			364	446	557		
ELEVATOR 2-4 STY	457	564	704			471	551	666			384	495	619			398	474	610		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 2

NEW YORK REGIONAL OFFICE

STRUCTURE TYPE	MARKET: NEW YORK CITY					MARKET: SUFFOLK					MARKET: WESTCHESTER					MARKET: ORANGE				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	687	692	953	1131	1382	797	844	1001	1047	1247	677	682	799	985	1072	563	612	732	873	955
SEMI-DETACHED/ROW	621	649	884	1058	1279	640	745	898	977	1080	534	637	762	921	1010	498	572	695	816	901
WALKUP	664	853	912	1151	1351	822	966	1177			659	755	928			667	722	912		
ELEVATOR 2-4 STY	866	1054	1171	1487	1699	888	991	1238			715	849	988			717	820	1002		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

STRUCTURE TYPE	MARKET: ROCKLAND					MARKET: NASSAU					MARKET: PUTNAM					MARKET: POUGHKEEPSIE				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	586	675	842	980	1063	708	715	922	1046	1159	587	592	754	905	987	502	534	731	854	976
SEMI-DETACHED/ROW	501	636	795	923	1022	552	688	834	958	1061	478	561	647	809	940	425	509	633	679	754
WALKUP	567	683	848			568	703	875			672	762	833			648	757	872		
ELEVATOR 2-4 STY	620	739	894			575	807	933			720	828	920			677	786	942		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 2

NEWARK OFFICE

STRUCTURE TYPE	MARKET: NEWARK					MARKET: NORTH BERGEN					MARKET: FREEHOLD					MARKET: CAMDEN				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	657	731	927	1076	1170	722	795	922	1069	1162	648	722	839	982	1076	624	629	769	935	1022
SEMI-DETACHED/ROW	578	647	829	962	1054	640	707	822	954	1047	568	633	742	868	961	465	539	662	819	917
WALKUP	668	743	947	1103	1191	729	804	940	1095	1184	655	730	852	1009	1096	598	671	817	980	1067
ELEVATOR 2-4 STY	751	842	1075	1259	1356	813	904	1068	1252	1349	739	830	980	1163	1264	683	770	959	1136	1232
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				
STRUCTURE TYPE	MARKET: ATLANTIC CITY					MARKET: BURLINGTON					MARKET: GLOUCESTER					MARKET: TRENTON				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	653	658	750	895	984	621	629	789	935	1022	574	629	777	935	1022	684	707	807	954	1043
SEMI-DETACHED/ROW	523	586	664	795	878	493	555	702	833	917	475	553	668	830	917	539	614	723	853	938
WALKUP	630	702	792	942	1026	599	671	830	980	1067	599	671	828	980	1067	672	752	851	1001	1086
ELEVATOR 2-4 STY	715	802	920	1096	1194	683	770	959	1136	1232	683	770	959	1136	1232	769	858	979	1156	1255
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				
STRUCTURE TYPE	MARKET: VINELAND					MARKET: ASBURY PARK														
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	560	580	664	807	897	593	666	793	940	1034										
SEMI-DETACHED/ROW	414	494	576	707	792	511	578	692	826	918										
WALKUP	553	630	705	854	941	600	675	810	967	1053										
ELEVATOR 2-4 STY	645	730	833	1010	1108	683	781	938	1121	1222										
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187														
	TRENDED DATE 100189					TRENDED DATE 100189														

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 2

CARIBBEAN OFFICE

STRUCTURE TYPE	MARKET: SAN JUAN			MARKET: MAYAGUEZ			MARKET: PONCE			MARKET: ARECIBO		
	NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0-	-1-	-2-	-0-	-1-	-2-	-0-	-1-	-2-	-0-	-1-	-2-
SEMI-DETACHED/ROW	428	439	518	401	439	500	365	402	464	396	434	495
WALKUP	361	417	463	343	408	436	336	373	427	343	404	459
ELEVATOR 2-4 STY												
ELEVATOR 5+ STY	413	463	530	385	437	543	385	437	517	385	437	543
MANUFACTURED HOME												
	EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
	TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	

STRUCTURE TYPE	MARKET: ST. CROIX			MARKET: ST. THOMAS			MARKET: OLD SAN JUAN		
	NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0-	-1-	-2-	-0-	-1-	-2-	-0-	-1-	-2-
SEMI-DETACHED/ROW	432	504	592	648	716	825	572	617	647
WALKUP	367	432	525	520	605	746	538	581	614
ELEVATOR 2-4 STY				525	632	772			
ELEVATOR 5+ STY									
MANUFACTURED HOME									
	EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
	TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

BALTIMORE OFFICE

STRUCTURE TYPE	MARKET: BALTIMORE					MARKET: HAGERSTOWN					MARKET: SALISBURY							
	NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS							
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+			
DETACHED			755	852	1002			653	767	884			641	707	830			
SEMI-DETACHED/ROW	452	529	612	725	938	368	490	576	651	846	413	452	521	603	777			
WALKUP	409	524	602	720	778	366	485	570	646	676	345	447	515	597	672			
ELEVATOR 2-4 STY	442	552	654			393	492	576			358	490	537					
ELEVATOR 5+ STY	488	602	730			427	497	590			395	515	625					
MANUFACTURED HOME																		
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

CHARLESTON OFFICE

STRUCTURE TYPE	MARKET: CHARLESTON NUMBER OF BEDROOMS					MARKET: BLUEFIELD NUMBER OF BEDROOMS					MARKET: HUNTINGTON NUMBER OF BEDROOMS					MARKET: PARKERSBURG NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			561	666	757			519	592	658			512	618	672			479	553	608
SEMI-DETACHED/ROW	346	420	532	637	735	303	392	489	553	595	312	401	498	584	645	272	352	450	522	575
WALKUP	325	415	521	532	601	298	381	449	502	552	262	390	493	556	610	267	341	423	495	541
ELEVATOR 2-4 STY	425	523	591			422	502	562			399	474	569			411	495	600		
ELEVATOR 5+ STY	438	530	597			430	509	570			405	481	575			420	502	608		
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

STRUCTURE TYPE	MARKET: WHEELING NUMBER OF BEDROOMS					MARKET: MARTINSBURG NUMBER OF BEDROOMS					MARKET: FAIRMONT NUMBER OF BEDROOMS					MARKET: POINT PLEASANT NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			490	584	653			496	584	653			555	618	692			478	551	601
SEMI-DETACHED/ROW	274	363	460	566	627	293	367	459	550	627	345	425	524	592	664	272	352	446	519	572
WALKUP	269	352	455	526	574	283	342	454	526	595	340	415	504	556	613	259	341	438	488	543
ELEVATOR 2-4 STY	395	472	573			441	492	547			472	519	578			409	488	547		
ELEVATOR 5+ STY	400	479	578			452	497	554			480	525	585			414	497	555		
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

PHILADELPHIA REGIONAL OFFICE

STRUCTURE TYPE	MARKET: PHILADELPHIA					MARKET: ALLENTOWN					MARKET: BELLEFONTE					MARKET: HARRISBURG								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED																								
SEMI-DETACHED/ROW		612	766	886	993		492	511	636	744	822		451	517	549	713	799		516	521	574	713	799	
WALKUP		479	540	682	774	856		436	480	598	699	780		408	480	544	686	748		411	480	555	686	746
ELEVATOR 2-4 STY		582	604	756				515	543	637				447	522	649				467	542	598		
ELEVATOR 5+ STY		641	720	849				529	581	713				497	561	693				505	586	649		
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189
STRUCTURE TYPE	MARKET: LANCASTER					MARKET: YORK					MARKET: READING					MARKET: SCRANTON								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED																								
SEMI-DETACHED/ROW		479	485	596	733	762		479	485	596	733	762		505	511	612	735	818		475	542	629	684	779
WALKUP		400	468	584	695	732		400	468	584	690	732		407	490	587	694	762		407	482	598	679	762
ELEVATOR 2-4 STY		486	562	730				484	562	730				465	548	636				504	561	668		
ELEVATOR 5+ STY		511	587	755				509	587	755				503	601	705				536	597	711		
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

STRUCTURE TYPE	MARKET: LANCASTER					MARKET: YORK					MARKET: READING					MARKET: SCRANTON				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED																				
SEMI-DETACHED/ROW	479	485	596	733	762	479	485	596	733	762	505	511	612	735	818	475	542	629	684	779
WALKUP	400	468	584	695	732	400	468	584	690	732	407	490	587	694	762	407	482	598	679	762
ELEVATOR 2-4 STY	486	562	730			484	562	730			465	548	636			504	561	668		
ELEVATOR 5+ STY	511	587	755			509	587	755			503	601	705			536	597	711		
MANUFACTURED HOME																				
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187		
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189		

MARKET: WELLSBORO									
STRUCTURE TYPE	NUMBER OF BEDROOMS						EFFECTIVE DATE	TRENDED DATE	
	-0-	-1-	-2-	-3-	-4+				
DETACHED									
SEMI-DETACHED/ROW	418	517	624	716	799				
WALKUP	408	489	589	686	727				
ELEVATOR 2-4 STY	447	522	649						
ELEVATOR 5+ STY	497	561	693						
MANUFACTURED HOME									
							100187	100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

PITTSBURGH OFFICE

STRUCTURE TYPE	MARKET: PITTSBURGH NUMBER OF BEDROOMS				MARKET: ERIE NUMBER OF BEDROOMS				MARKET: ALTOONA NUMBER OF BEDROOMS				MARKET: JOHNSTOWN NUMBER OF BEDROOMS			
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	
DETACHED	487	585	686	762	892	462	555	641	713	834	376	453	557	671	810	
SEMI-DETACHED/ROW	418	497	579	724	847	369	455	541	628	795	358	441	547	639	772	
WALKUP	531	595	686	695	813	521	578	672	628	703	518	584	618	623	717	
ELEVATOR 2-4 STY	548	620	729			540	596	722			531	601	657			
ELEVATOR 5+ STY																
MANUFACTURED HOME																
	EFFECTIVE DATE				100187	EFFECTIVE DATE				100187	EFFECTIVE DATE				100187	
	TRENDED DATE				100189	TRENDED DATE				100189	TRENDED DATE				100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

RICHMOND OFFICE

STRUCTURE TYPE	MARKET: NORTON					MARKET: HARRISONBURG					MARKET: NEWPORT NEWS					MARKET: NORFOLK				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	364	375	451	547	610	379	419	488	563	638	413	418	481	600	653	442	447	534	605	657
SEMI-DETACHED/ROW	276	343	436	542	597	327	389	483	557	620	328	372	449	538	599	384	433	512	600	650
WALKUP	312	378	471			363	424	519			364	407	484			419	468	547		
ELEVATOR 2-4 STY	342	425	563			394	488	568			467	555	638			490	597	692		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			
MARKET: CHARLOTTESVILLE																				
STRUCTURE TYPE	MARKET: CHARLOTTESVILLE					MARKET: RICHMOND					MARKET: RICHMOND					MARKET: RICHMOND				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	463	469	554	655	696	426	433	502	587	638	426	433	502	587	638	426	433	502	587	638
SEMI-DETACHED/ROW	385	436	522	580	646	351	412	492	580	632	351	412	492	580	632	351	412	492	580	632
WALKUP	420	471	557			387	446	526			387	446	526			387	446	526		
ELEVATOR 2-4 STY	465	563	698			438	532	657			438	532	657			438	532	657		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

WASHINGTON D.C. OFFICE

STRUCTURE TYPE	MARKET: WASHINGTON D.C. NUMBER OF BEDROOMS			
	-0-	-1-	-2-	-3- -4+
DETACHED	581	653	716	796 898
SEMI-DETACHED/ROW	468	553	629	729 814
WALKUP	505	610	787	
ELEVATOR 2-4 STY	566	652	846	
ELEVATOR 5+ STY				
MANUFACTURED HOME				
	EFFECTIVE DATE		100187	
	TRENDED DATE		100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 3

WILMINGTON

STRUCTURE TYPE	MARKET: WILMINGTON, DEL NUMBER OF BEDROOMS					MARKET: DOVER, DEL NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			658	828	866			630	755	854
SEMI-DETACHED/ROW	475	480	587	705	774	436	441	530	653	712
WALKUP	397	460	543	631	676	384	419	476	568	614
ELEVATOR 2-4 STY	438	512	646			395	485	574		
ELEVATOR 5+ STY	466	594	658			419	536	637		
MANUFACTURED HOME										
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4

ATLANTA REGIONAL OFFICE

STRUCTURE TYPE	MARKET: ATLANTA					MARKET: ALBANY					MARKET: AUGUSTA					MARKET: BRUNSWICK				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	466	497	564	681	724	336	375	439	511	557	344	370	434	495	527	364	405	461	536	596
SEMI-DETACHED/ROW	453	481	551	667	708	324	364	428	500	546	334	360	421	485	517	351	393	455	523	572
WALKUP	483	511	579			350	390	454			359	385	448			382	421	486		
ELEVATOR 2-4 STY	541	576	659			404	444	509			409	435	498			438	476	544		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187		
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189		

STRUCTURE TYPE	MARKET: COLUMBUS					MARKET: MACON					MARKET: ROME					MARKET: SAVANNAH								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED	340	378	423	543	584	365	400	448	496	557	319	346	399	474	530	375	414	498	565	613				
SEMI-DETACHED/ROW	325	364	410	529	570	361	382	437	480	536	307	333	394	461	516	362	400	485	552	600				
WALKUP	353	394	438			391	413	463			333	359	420			390	434	513						
ELEVATOR 2-4 STY	413	454	495			446	480	517			396	416	478			446	490	569						
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

STRUCTURE TYPE	MARKET: VALDOSTA					EFFECTIVE DATE	TRENDED DATE
	-0-	-1-	-2-	-3-	-4-		
DETACHED	314	356	424	509	557	100187	100189
SEMI-DETACHED/ROW	302	337	414	484	545		
WALKUP	331	372	444				
ELEVATOR 2-4 STY	385	428	497				
ELEVATOR 5+ STY							
MANUFACTURED HOME							

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4
BIRMINGHAM OFFICE

STRUCTURE TYPE	MARKET: BIRMINGHAM					MARKET: DOTHAN					MARKET: FLORENCE					MARKET: HUNTSVILLE				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	379	386	459	555	595	333	363	421	506	552	341	368	437	531	575	399	404	483	570	701
SEMI-DETACHED/ROW	341	379	445	536	576	327	358	415	487	532	319	362	423	511	559	337	398	476	555	612
WALKUP	352	399	471			339	375	438			334	375	447			386	429	518		
ELEVATOR 2-4 STY	366	419	498			345	386	455			347	388	460			398	449	544		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				
STRUCTURE TYPE	MARKET: MOBILE					MARKET: MONTGOMERY					MARKET: TUSCALOOSA									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	353	382	466	535	575	367	372	473	561	616	379	397	461	561	600					
SEMI-DETACHED/ROW	334	375	452	522	561	340	366	453	555	608	351	391	447	544	583					
WALKUP	351	386	469			352	386	479			374	411	473							
ELEVATOR 2-4 STY	357	398	486			365	405	506			388	427	497							
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				

STRUCTURE TYPE	MARKET: MOBILE					MARKET: MONTGOMERY					MARKET: TUSCALOOSA				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	353	382	466	535	575	367	372	473	561	616	379	397	461	561	600
SEMI-DETACHED/ROW	334	375	452	522	561	340	366	453	555	608	351	391	447	544	583
WALKUP	351	386	469			352	386	479			374	411	473		
ELEVATOR 2-4 STY	357	398	486			365	405	506			388	427	497		
ELEVATOR 5+ STY															
MANUFACTURED HOME															
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4

COLUMBIA OFFICE

MARKET: GREENVILLE		MARKET: GREENWOOD		MARKET: MYRTLE BEACH		MARKET: ROCKHILL	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	375 401 510 604 652	346 362 454 523 565	378 392 481 586 624	401 454 508 596 634	391 444 498 587 625	416 470 523	442 495 547
WALKUP	366 391 498 589 630	337 353 445 511 548	368 383 472 576 614	391 406 495	416 470 523	442 495 547	416 470 523
ELEVATOR 2-4 STY	400 416 525	360 375 467	391 406 495	416 470 523	442 495 547	416 470 523	442 495 547
ELEVATOR 5+ STY	425 441 550	382 397 488	414 429 519	442 495 547	416 470 523	442 495 547	416 470 523
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: COLUMBIA		MARKET: AIKEN		MARKET: CHARLESTON		MARKET: FLORENCE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	391 443 519 614 653	387 438 494 575 612	405 420 503 569 606	361 434 473 543 578	361 434 473 543 578	361 434 473 543 578	361 434 473 543 578
WALKUP	381 433 509 604 643	377 429 485 566 603	395 410 493 559 596	350 425 464 534 569	350 425 464 534 569	350 425 464 534 569	350 425 464 534 569
ELEVATOR 2-4 STY	406 458 534	402 453 508	420 435 518	398 449 486	398 449 486	398 449 486	398 449 486
ELEVATOR 5+ STY	431 483 559	426 478 572	445 460 543	422 474 508	422 474 508	422 474 508	422 474 508
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4

GREENSBORO OFFICE

MARKET: GREENSBORO		MARKET: ASHEVILLE		MARKET: CHARLOTTE		MARKET: DURHAM	
STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	400 413 493 543 652	SEMI-DETACHED/ROW	389 395 465 565 652	SEMI-DETACHED/ROW	430 437 517 598 691	SEMI-DETACHED/ROW	405 411 506 608 695
WALKUP	349 408 488 538 648	WALKUP	332 389 448 560 647	WALKUP	369 432 512 593 686	WALKUP	381 405 501 601 690
ELEVATOR 2-4 STY	372 444 516	ELEVATOR 2-4 STY	369 425 485	ELEVATOR 2-4 STY	395 461 548	ELEVATOR 2-4 STY	416 442 536
ELEVATOR 5+ STY	530 570 691	ELEVATOR 5+ STY	483 543 641	ELEVATOR 5+ STY	532 572 686	ELEVATOR 5+ STY	529 576 701
MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME	
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: GREENVILLE		MARKET: RALEIGH		MARKET: WINSTON-SALEM		MARKET: FAYETTEVILLE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	345 377 453 516 596	SEMI-DETACHED/ROW	445 458 534 594 683	SEMI-DETACHED/ROW	385 400 465 544 629	SEMI-DETACHED/ROW	364 373 438 510 586
WALKUP	303 372 447 511 591	WALKUP	381 451 527 589 676	WALKUP	323 395 459 539 623	WALKUP	322 368 434 504 580
ELEVATOR 2-4 STY	337 395 470	ELEVATOR 2-4 STY	411 474 551	ELEVATOR 2-4 STY	352 418 490	ELEVATOR 2-4 STY	353 402 470
ELEVATOR 5+ STY	454 512 606	ELEVATOR 5+ STY	543 608 768	ELEVATOR 5+ STY	508 543 651	ELEVATOR 5+ STY	500 594
MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME	
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: WILMINGTON		MARKET: ELIZABETH CITY	
STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	381 386 465 527 598	SEMI-DETACHED/ROW	332 350 444 541 617
WALKUP	327 381 459 522 603	WALKUP	296 345 438 522 588
ELEVATOR 2-4 STY	361 402 481	ELEVATOR 2-4 STY	323 395 475
ELEVATOR 5+ STY	473 525 631	ELEVATOR 5+ STY	450 508 612
MANUFACTURED HOME		MANUFACTURED HOME	
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4

JACKSON OFFICE

STRUCTURE TYPE	MARKET: JACKSON					MARKET: CORINTH					MARKET: GREENVILLE					MARKET: GREENWOOD				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	388	426	531	641	727	303	354	422	531	636	388	430	498	541	629	363	411	473	529	623
SEMI-DETACHED/ROW	355	421	476	564	630	288	344	417	519	573	349	397	475	503	579	323	381	448	506	613
WALKUP	437	541	629			390	477	558			451	504	632			461	504	584	470	540
ELEVATOR 2-4 STY	447	552	644			403	489	573			465	519	651			471	516	599		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

STRUCTURE TYPE	MARKET: GULFPORT					MARKET: HATTIESBURG					MARKET: SOUTHAVEN				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	401	423	488	564	613	333	385	458	525	590	350	434	500	586	663
SEMI-DETACHED/ROW	337	390	444	543	607	292	348	439	487	536	337	414	494	573	629
WALKUP	451	500	624			414	444	551			459	509	613		
ELEVATOR 2-4 STY	462	512	639			425	455	567			468	521	628		
ELEVATOR 5+ STY															
MANUFACTURED HOME															
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4

JACKSONVILLE OFFICE

STRUCTURE TYPE	MARKET: JACKSONVILLE					MARKET: PENSACOLA					MARKET: KEY WEST					MARKET: MIAMI									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED			597	660	738			540	600	702			757	836	921			757	836	921					
SEMI-DETACHED/ROW	428	492	573	642	693	387	433	508	568	626	544	611	680	778	867	544	611	680	778	867					
WALKUP	379	424	523	631	686	328	376	457	539	575	451	501	610	726	777	451	501	610	726	777					
ELEVATOR 2-4 STY	446	497	626			384	436	531			524	579	721			524	579	721							
ELEVATOR 5+ STY	501	553	698			433	491	593			595	663	824			595	663	824							
MANUFACTURED HOME																									
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189					100189				

STRUCTURE TYPE	MARKET: TAMPA					MARKET: ORLANDO				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			576	655	773			638	712	757
SEMI-DETACHED/ROW	437	499	571	642	719	423	486	598	660	732
WALKUP	386	440	530	622	686	396	459	543	616	693
ELEVATOR 2-4 STY	483	541	664			473	539	657		
ELEVATOR 5+ STY	569	631	764			550	613	726		
MANUFACTURED HOME										
	EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187				
	TRENDED DATE					TRENDED DATE				
	100189					100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4
LOUISVILLE OFFICE

STRUCTURE TYPE	MARKET: LOUISVILLE					MARKET: COVINGTON					MARKET: OWENSBORO					MARKET: PADUCAH				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			580	556	744	376	429	501	585	688	332	388	474	548	646	334	390	477	551	650
SEMI-DETACHED/ROW	406	458	543	611	700	359	407	472	553	646	316	367	448	516	600	318	369	451	519	603
WALKUP	390	436	516	594	652	389	442	514			345	401	487			347	403	490		
ELEVATOR 2-4 STY	420	471	549			425	485	567			380	443	539			382	446	542		
ELEVATOR 5+ STY	455	513	596																	
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

STRUCTURE TYPE	MARKET: PIKEVILLE					MARKET: PADUCAH				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			612	697	765					
SEMI-DETACHED/ROW	440	479	572	647	711					
WALKUP	408	453	522	598	653					
ELEVATOR 2-4 STY	455	489	587							
ELEVATOR 5+ STY	493	556	646							
MANUFACTURED HOME										
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 02/1389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4
KNOXVILLE OFFICE

STRUCTURE TYPE	MARKET: KNOXVILLE					MARKET: CHATTANOOGA					MARKET: JOHNSON CITY					MARKET: KINGSPOINT								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED			481	562	599			493	584	623			471	546	584			471	546	584				
SEMI-DETACHED/ROW	379	417	466	551	589	439	442	481	567	607	359	385	460	536	567	359	385	460	536	567				
WALKUP	364	390	454	541	578	401	430	465	555	595	347	369	449	514	556	343	360	449	497	536				
ELEVATOR 2-4 STY	390	412	481			430	453	493			385	407	471			385	407	471						
ELEVATOR 5+ STY	412	439	492			453	481	521			407	433	497			407	433	497						
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

STRUCTURE TYPE	MARKET: OAKRIDGE					EFFECTIVE DATE
	-0-	-1-	-2-	-3-	-4+	
DETACHED	379	417	466	551	589	100187
SEMI-DETACHED/ROW	364	390	454	541	578	100189
WALKUP	390	412	481			
ELEVATOR 2-4 STY	412	439	492			
ELEVATOR 5+ STY						
MANUFACTURED HOME						

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 4
NASHVILLE OFFICE

STRUCTURE TYPE	MARKET: NASHVILLE					MARKET: CLARKSVILLE					MARKET: COLUMBIA					MARKET: MEMPHIS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	391	435	494	584	641	332	373	436	517	570	321	345	409	527	564	332	377	439	491	561
SEMI-DETACHED/ROW	358	414	486	577	623	307	350	431	504	565	287	338	397	512	557	296	332	387	467	502
WALKUP	369	435	494			332	379	448			294	358	405			345	414	488		
ELEVATOR 2-4 STY	376	450	512			338	402	469			306	383	443			388	459	532		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

STRUCTURE TYPE	MARKET: JACKSON				
	-0-	-1-	-2-	-3-	-4+
DETACHED	307	350	412	475	553
SEMI-DETACHED/ROW	288	332	400	463	527
WALKUP	337	379	470		
ELEVATOR 2-4 STY	359	420	505		
ELEVATOR 5+ STY					
MANUFACTURED HOME					
	EFFECTIVE DATE 100187				
	TRENDED DATE 100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

CHICAGO REGIONAL OFFICE

MARKET: CHICAGO		MARKET: BELLEVILLE		MARKET: MOLINE		MARKET: SPRINGFIELD	
STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS	STRUCTURE TYPE	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+	DETACHED	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	590 663 748 879 975	SEMI-DETACHED/ROW	431 481 578 653 738	SEMI-DETACHED/ROW	451 508 560 701 821	SEMI-DETACHED/ROW	403 459 538 612 690
WALKUP	500 577 690 827 868	WALKUP	371 429 543 620 690	WALKUP	393 449 503 638 716	WALKUP	367 431 500 577 654
ELEVATOR 2-4 STY	534 628 741 880 882	ELEVATOR 2-4 STY	405 456 576	ELEVATOR 2-4 STY	418 478 539	ELEVATOR 2-4 STY	396 455 534
ELEVATOR 5+ STY	578 724 861 894 945	ELEVATOR 5+ STY	462 514 648	ELEVATOR 5+ STY	500 569 640	ELEVATOR 5+ STY	454 509 603
MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME		MANUFACTURED HOME	
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: EAST ST. LOUIS	
STRUCTURE TYPE	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	410 472 528 605 675
WALKUP	373 432 505 584 649
ELEVATOR 2-4 STY	397 460 541
ELEVATOR 5+ STY	480 535 585
MANUFACTURED HOME	
EFFECTIVE DATE	100187
TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

CINCINNATI OFFICE

STRUCTURE TYPE	MARKET: CINCINNATI NUMBER OF BEDROOMS					MARKET: DAYTON NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			713	870	937			638	828	915
SEMI-DETACHED/ROW	447	516	587	704	775	415	444	516	618	696
WALKUP	361	424	536	610	703	346	433	501	579	648
ELEVATOR 2-4 STY	397	530	632			404	537	641		
ELEVATOR 5+ STY	553	651	739			560	657	704		
MANUFACTURED HOME										
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 021389

SCHEDULE A - FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5
CLEVELAND OFFICE

STRUCTURE TYPE	MARKET: CLEVELAND					MARKET: AKRON					MARKET: FINDLAY					MARKET: LORAIN				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	521	545	613	692	726	495	522	589	666	699	413	446	495	591	626	401	407	481	560	597
SEMI-DETACHED/ROW	390	449	521	604	688	385	439	515	589	655	343	371	436	530	589	294	323	397	498	541
WALKUP	400	475	586			390	428	520			348	376	485			371	390	465		
ELEVATOR 2-4 STY	456	485	608			395	458	525			393	450	554			390	396	484		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

STRUCTURE TYPE	MARKET: MANSFIELD					MARKET: TOLEDO					MARKET: YOUNGSTOWN									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	466	471	520	598	666	430	491	562	645	688	423	429	496	579	596					
SEMI-DETACHED/ROW	344	370	420	522	562	364	404	478	584	620	308	347	413	518	565					
WALKUP	379	417	498			387	420	515			345	364	453							
ELEVATOR 2-4 STY	386	444	510			424	430	524			352	372	462							
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187								
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189								

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

COLUMBUS OFFICE

STRUCTURE TYPE	MARKET: COLUMBUS			
	NUMBER OF BEDROOMS			
	-0-	-1-	-2-	-3- -4+
DETACHED			549	672 683
SEMI-DETACHED/ROW	383	420	482	563 616
WALKUP	333	409	475	520 584
ELEVATOR 2-4 STY	370	445	528	
ELEVATOR 5+ STY	419	500	590	
MANUFACTURED HOME				
	EFFECTIVE DATE			100187
	TRENDED DATE			100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

DETROIT OFFICE

STRUCTURE TYPE	MARKET: DETROIT					MARKET: FLINT					MARKET: ANN ARBOR					MARKET: YPSILANTI								
	NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED	460	496	617	721	832	359	400	500	639	679	417	422	546	655	722	417	422	546	655	722				
SEMI-DETACHED/ROW	388	479	562	665	771	343	386	450	591	664	340	417	513	562	628	340	417	513	562	628				
WALKUP	415	506	578			348	405	476			382	449	532			382	449	532						
ELEVATOR 2-4 STY	424	521	638			356	455	542			387	489	555			387	489	555						
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

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SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

GRAND RAPIDS OFFICE

STRUCTURE TYPE	MARKET: MT PLEASANT NUMBER OF BEDROOMS					MARKET: GRAND RAPIDS NUMBER OF BEDROOMS					MARKET: BENTON HARBOR NUMBER OF BEDROOMS					MARKET: BATTLE CREEK NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	402	453	522	647	699	420	425	525	622	672	400	429	536	644	679	398	423	520	642	691
SEMI-DETACHED/ROW	275	369	412	512	551	309	385	489	537	574	299	347	429	525	559	298	383	469	567	602
WALKUP	284	386	430			327	405	506			317	365	447			317	401	487		
ELEVATOR 2-4 STY	441	527	612			446	520	577			433	496	568			458	530	595		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187		
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189		

STRUCTURE TYPE	MARKET: LANSING NUMBER OF BEDROOMS					MARKET: MUSKEGON NUMBER OF BEDROOMS					MARKET: TRAVERSE CITY NUMBER OF BEDROOMS					MARKET: MARQUETTE NUMBER OF BEDROOMS								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED	420	428	512	632	681	439	481	572	671	713	481	496	581	715	754	363	416	524	631	668				
SEMI-DETACHED/ROW	328	386	468	564	598	314	397	470	557	569	317	412	466	572	614	236	328	425	529	569				
WALKUP	347	405	486			334	418	489			335	429	484			254	346	444						
ELEVATOR 2-4 STY	414	468	549			454	530	590			502	580	644			462	541	556						
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

STRUCTURE TYPE	MARKET: JACKSON NUMBER OF BEDROOMS					EFFECTIVE DATE	TRENDED DATE
	-0-	-1-	-2-	-3-	-4+		
DETACHED	409	414	501	619	667	100187	100189
SEMI-DETACHED/ROW	321	398	455	560	590		
WALKUP	327	417	474				
ELEVATOR 2-4 STY	470	543	615				
ELEVATOR 5+ STY							
MANUFACTURED HOME							

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 5

INDIANAPOLIS OFFICE

MARKET: INDIANAPOLIS		MARKET: BLOOMINGTON		MARKET: EVANSVILLE		MARKET: FORT WAYNE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	367 413 512 619 627	345 389 484 563 616	335 386 478 558 635	390 422 505 561 626	390 422 505 561 626	390 422 505 561 626	390 422 505 561 626
WALKUP	339 384 460 520 558	309 359 448 526 563	301 349 441 509 555	343 387 460 516 567	343 387 460 516 567	343 387 460 516 567	343 387 460 516 567
ELEVATOR 2-4 STY	368 407 488	346 385 479	335 376 471	379 412 490	379 412 490	379 412 490	379 412 490
ELEVATOR 5+ STY	463 512 593	424 472 568	405 478 580	475 526 616	475 526 616	475 526 616	475 526 616
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: LAFAYETTE		MARKET: SOUTH BEND		MARKET: TERRE HAUTE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	397 448 531 608 688	376 418 513 582 645	381 425 517 595 680	379 421 507 582 647	379 421 507 582 647
WALKUP	363 416 496 563 599	346 393 472 534 585	349 395 475 538 582	338 389 475 546 579	338 389 475 546 579
ELEVATOR 2-4 STY	408 439 524	379 411 501	383 417 508	374 412 503	374 412 503
ELEVATOR 5+ STY	466 532 620	462 516 616	460 513 610	443 496 612	443 496 612
MANUFACTURED HOME					
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: GARY		MARKET: HAMMOND	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	385 441 521 596 686	397 448 531 608 688	397 448 531 608 688
WALKUP	363 416 496 568 585	363 416 496 563 599	363 416 496 563 599
ELEVATOR 2-4 STY	405 439 530	408 439 524	408 439 524
ELEVATOR 5+ STY	443 506 596	466 532 620	466 532 620
MANUFACTURED HOME			
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)REGION 5
MILWAUKEE OFFICE

STRUCTURE TYPE	MARKET: MADISON					MARKET: REEDSVILLE					MARKET: SUPERIOR					MARKET: MILWAUKEE				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			650	736	770			592	675	707										
SEMI-DETACHED/ROW	395	476	570	679	729	340	427	506	622	657	324	433	497	605	641	430	543	646	742	802
WALKUP	385	429	525	628		335	384	459	548		318	379	452	561		424	481	573	700	
ELEVATOR 2-4 STY	401	444	540			353	400	472			337	398	469			444	498	592		
ELEVATOR 5+ STY	518	561	685			468	514	630			475	520	614			579	629	772		
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

STRUCTURE TYPE	MARKET: EAU CLAIRE					MARKET: GREEN BAY					MARKET: WAUSAU				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			520	607	643			555	635	665					
SEMI-DETACHED/ROW	303	383	437	551	605	323	398	477	580	614	326	417	479	592	630
WALKUP	295	339	392	497		303	350	434	530		321	368	435	539	
ELEVATOR 2-4 STY	315	358	412			318	365	449			337	385	453		
ELEVATOR 5+ STY	423	465	559			438	477	588			456	501	597		
MANUFACTURED HOME															
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 0213s

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)**

REGION 5

MINNEAPOLIS-ST. PAUL OFFICE

STRUCTURE TYPE	MARKET: MINNEAPOLIS					MARKET: DULUTH					MARKET: MANKATO					MARKET: ROCHESTER				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	440	445	596	686	766	372	404	559	643	708	413	453	570	649	726	422	457	587	678	759
SEMI-DETACHED/ROW	363	417	497	636	658	356	386	477	584	620	356	398	496	573	605	372	413	510	587	622
WALKUP	402	478	599			376	446	552			389	437	512			402	448	530		
ELEVATOR 2-4 STY	411	593	686			394	481	613			407	561	665			438	591	673		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			
	MARKET: ST. CLOUD																			
	NUMBER OF BEDROOMS					MARKET: WORTHINGTON					NUMBER OF BEDROOMS									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	353	384	512	590	649	324	345	479	545	610										
SEMI-DETACHED/ROW	322	361	448	540	573	295	324	418	504	536										
WALKUP	349	423	487			313	384	458												
ELEVATOR 2-4 STY	354	498	589			318	445	543												
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187								
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189								

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 6

FORT WORTH REGIONAL OFFICE

STRUCTURE TYPE	MARKET: DALLAS			MARKET: SHERMAN			MARKET: TYLER			MARKET: WACO		
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659	351 389 479 584 659
WALKUP	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612	299 328 455 534 612
ELEVATOR 2-4 STY	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494	312 356 494
ELEVATOR 5+ STY	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699	438 504 699
MANUFACTURED HOME												
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
STRUCTURE TYPE	MARKET: WICHITA FALLS			MARKET: SAN ANGELO			MARKET: ABILENE			MARKET: LUBBOCK		
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620	308 341 421 534 620
WALKUP	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576	268 307 399 488 576
ELEVATOR 2-4 STY	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434	280 335 434
ELEVATOR 5+ STY	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614	393 471 614
MANUFACTURED HOME												
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
STRUCTURE TYPE	MARKET: AMARILLO			MARKET: EL PASO			MARKET: MIDLAND			MARKET: ODESSA		
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605	323 357 440 537 605
WALKUP	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562	275 301 418 509 562
ELEVATOR 2-4 STY	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454	287 327 454
ELEVATOR 5+ STY	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642	402 463 642
MANUFACTURED HOME												
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
STRUCTURE TYPE	MARKET: ALBUQUERQUE NM			MARKET: SANTA FE NM			MARKET: SILVER CITY NM			MARKET: TAOS NM		
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670	364 387 492 578 670
WALKUP	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627	305 356 463 538 627
ELEVATOR 2-4 STY	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503	319 400 503
ELEVATOR 5+ STY	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694	448 523 694
MANUFACTURED HOME												
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

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SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 6

FORT WORTH REGIONAL OFFICE

STRUCTURE TYPE	MARKET: CLOVIS NM				
	NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+
DETACHED			433	543	636
SEMI-DETACHED/ROW	285	323	377	464	534
WALKUP	242	263	358	411	496
ELEVATOR 2-4 STY	253	333	388		
ELEVATOR 5+ STY	372	447	549		
MANUFACTURED HOME					

EFFECTIVE DATE 100187
TRENDED DATE 100189

PREPARED ON 021389

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)**

REGION 6

HOUSTON OFFICE

STRUCTURE TYPE	MARKET: HOUSTON				MARKET: BEAUMONT				MARKET: BRYAN				MARKET: LUFKIN			
	-0-	-1-	-2-	-3- -4+	-0-	-1-	-2-	-3- -4+	-0-	-1-	-2-	-3- -4+	-0-	-1-	-2-	-3- -4+
DETACHED	361	430	552	674 823 957	338	394	477	569 857	362	404	536	585 774 898	312	363	452	533 614 758
SEMI-DETACHED/ROW	336	405	527	627 722	313	369	457	544 627	341	386	515	639 749	292	343	427	508 588
WALKUP	396	470	592		373	444	552		393	441	603		339	398	499	
ELEVATOR 2-4 STY	570	666	770		548	599	603		544	653	802		487	567	696	
ELEVATOR 5+ STY																
MANUFACTURED HOME																
	EFFECTIVE DATE	100187			EFFECTIVE DATE	100187			EFFECTIVE DATE	100187			EFFECTIVE DATE	100187		
	TRENDED DATE	100189			TRENDED DATE	100189			TRENDED DATE	100189			TRENDED DATE	100189		

STRUCTURE TYPE	MARKET: EL CAMPO				MARKET: TEXAS CITY			
	-0-	-1-	-2-	-3- -4+	-0-	-1-	-2-	-3- -4+
DETACHED	358	396	482	575 673 780	379	456	574	668 762 882
SEMI-DETACHED/ROW	338	376	460	508 588 680	358	444	560	621 719
WALKUP	393	436	545		421	509	645	
ELEVATOR 2-4 STY	481	568	702		570	666	770	
ELEVATOR 5+ STY								
MANUFACTURED HOME								
	EFFECTIVE DATE	100187			EFFECTIVE DATE	100187		
	TRENDED DATE	100189			TRENDED DATE	100189		

PREPARED ON 021389

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)**

REGION 6

LITTLE ROCK OFFICE

STRUCTURE TYPE	MARKET: FAYETTEVILLE					MARKET: LITTLE ROCK					MARKET: TEXARKANA					MARKET: FORT SMITH				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	337	411	504	575	652	352	444	496	576	635	339	400	478	574	631	328	375	461	528	591
SEMI-DETACHED/ROW	328	396	461	548	605	327	412	460	571	630	323	389	455	569	626	308	354	433	497	552
WALKUP	350	422	493			351	441	495			346	420	489			331	382	466		
ELEVATOR 2-4 STY	433	506	589			436	510	600			433	506	590			439	517	604		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189				

MARKET: JONESBORO		NUMBER OF BEDROOMS				
STRUCTURE TYPE		-0-	-1-	-2-	-3-	-4+
DETACHED				497	569	637
SEMI-DETACHED/ROW		334	397	465	564	619
WALKUP		320	377	445	559	614
ELEVATOR 2-4 STY		343	404	482		
ELEVATOR 5+ STY		426	499	585		
MANUFACTURED HOME						
		EFFECTIVE DATE				100187
		TRENDED DATE				100189

PREPARED ON 021389

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)**

REGION 6

NEW ORLEANS OFFICE

[illegible]

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SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 6

OKLAHOMA CITY OFFICE

MARKET: OKLAHOMA CITY		MARKET: ADA		MARKET: ARDMORE		MARKET: ENID	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	306 349 424 510 568	306 369 415 489 552	317 382 430 509 572	299 363 446 549 586	299 363 446 549 586	299 363 446 549 586	299 363 446 549 586
WALKUP	242 291 369 480 543	258 317 363 437 484	267 328 376 453 501	241 301 380 448 495	241 301 380 448 495	241 301 380 448 495	241 301 380 448 495
ELEVATOR 2-4 STY	271 323 418	272 336 392	282 348 406	256 321 409	256 321 409	256 321 409	256 321 409
ELEVATOR 5+ STY	353 407 516	357 419 493	370 419 511	347 422 513	347 422 513	347 422 513	347 422 513
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
MARKET: GUYMON		MARKET: LAWTON		MARKET: SHAWNEE		MARKET: STILLWATER	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	272 290 356 436 498	374 418 495 580 644	326 381 461 516 567	337 360 418 527 565	337 360 418 527 565	337 360 418 527 565	337 360 418 527 565
WALKUP	217 234 299 373 421	303 349 441 521 568	272 326 396 432 472	283 306 363 467 491	283 306 363 467 491	283 306 363 467 491	283 306 363 467 491
ELEVATOR 2-4 STY	233 254 330	322 375 471	287 345 436	298 326 393	298 326 393	298 326 393	298 326 393
ELEVATOR 5+ STY	333 352 452	395 449 561	354 395 474	353 417 490	353 417 490	353 417 490	353 417 490
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
MARKET: WOODWARD		MARKET: BARTLESVILLE		MARKET: MC ALESTER		MARKET: MUSKOGEE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	270 288 353 432 494	297 338 470 553 616	345 350 449 517 579	317 363 421 490 555	317 363 421 490 555	317 363 421 490 555	317 363 421 490 555
WALKUP	215 232 297 370 417	245 285 404 481 529	245 277 386 448 495	258 301 350 435 471	258 301 350 435 471	258 301 350 435 471	258 301 350 435 471
ELEVATOR 2-4 STY	231 252 327	260 305 414	259 296 407	273 321 364	273 321 364	273 321 364	273 321 364
ELEVATOR 5+ STY	329 349 448	338 373 470	308 345 459	345 382 417	345 382 417	345 382 417	345 382 417
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189
MARKET: TULSA		MARKET: TULSA		MARKET: TULSA		MARKET: TULSA	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	281 322 394 488 535	281 322 394 488 535	281 322 394 488 535	281 322 394 488 535	281 322 394 488 535	281 322 394 488 535	281 322 394 488 535
WALKUP	227 288 366 433 500	227 288 366 433 500	227 288 366 433 500	227 288 366 433 500	227 288 366 433 500	227 288 366 433 500	227 288 366 433 500
ELEVATOR 2-4 STY	242 308 396	242 308 396	242 308 396	242 308 396	242 308 396	242 308 396	242 308 396
ELEVATOR 5+ STY	336 399 508	336 399 508	336 399 508	336 399 508	336 399 508	336 399 508	336 399 508
MANUFACTURED HOME							
EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 6

SAN ANTONIO OFFICE

MARKET: SAN ANTONIO			MARKET: AUSTIN			MARKET: CORPUS CHRISTI			MARKET: EAGLE PASS		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	330 347 408 492 563		346 388 449 593 685			317 345 442 557 600			304 354 392 474 522		
WALKUP	303 327 392 471 530		317 361 420 561 636			295 321 419 529 555			284 337 375 456 489		
ELEVATOR 2-4 STY	423 455 554		377 453 537			357 381 550			384 440 505		
ELEVATOR 5+ STY	433 468 569		387 466 552			367 394 565			394 453 525		
MANUFACTURED HOME											
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
	TRENDING DATE	100189	TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	
MARKET: HARLINGEN			MARKET: LAREDO			MARKET: VICTORIA			MARKET: DEL RIO		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	324 332 371 415 466 521		326 372 453 485 566			292 333 370 566 589			274 349 430 504 545		
WALKUP	302 315 355 385 415		295 337 418 442 507			272 314 353 548 555			254 330 414 485 515		
ELEVATOR 2-4 STY	378 396 458		396 442 552			370 415 482			354 335 546		
ELEVATOR 5+ STY	396 409 473		406 555 567			380 428 497			364 448 551		
MANUFACTURED HOME											
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
	TRENDING DATE	100189	TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 7
DES MOINES OFFICE

MARKET: DES MOINES			MARKET: BETTENDORF			MARKET: CEDAR RAPIDS			MARKET: COUNCIL BLUFF		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	438 463 556 626 717		355 396 469 535 615			377 440 546 623 710			415 443 529 596 677		
WALKUP	354 408 474 534 592		302 345 415 477 541			313 367 470 543 616			332 382 449 502 556		
ELEVATOR 2-4 STY	428 474 561		369 412 500			407 462 569			420 476 548		
ELEVATOR 5+ STY	461 515 611		404 451 550			459 511 621			456 517 612		
MANUFACTURED HOME											
EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	
MARKET: DUBUQUE			MARKET: MASON CITY			MARKET: SIOUX CITY			MARKET: DAVENPORT		
STRUCTURE TYPE	NUMBER OF BEDROOMS		NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+		-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+			-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	383 442 509 582 663		377 432 528 601 684			399 450 548 620 695			356 405 469 536 613		
WALKUP	323 378 451 529 599		324 374 453 522 596			336 375 455 523 608			307 353 415 488 552		
ELEVATOR 2-4 STY	405 456 540		394 444 559			418 466 565			378 422 502		
ELEVATOR 5+ STY	441 497 593		428 484 611			452 505 617			411 461 552		
MANUFACTURED HOME											
EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187		EFFECTIVE DATE	100187	
TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189		TRENDING DATE	100189	
MARKET: WATERLOO											
STRUCTURE TYPE	NUMBER OF BEDROOMS										
DETACHED	-0- -1- -2- -3- -4+										
SEMI-DETACHED/ROW	340 390 439 505 583										
WALKUP	295 338 387 457 520										
ELEVATOR 2-4 STY	356 402 467										
ELEVATOR 5+ STY	388 439 515										
MANUFACTURED HOME											
EFFECTIVE DATE	100187										
TRENDING DATE	100189										

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SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 7

KANSAS CITY REGIONAL OFFICE

STRUCTURE TYPE	MARKET: KANSAS CITY NUMBER OF BEDROOMS					MARKET: JOPLIN NUMBER OF BEDROOMS					MARKET: ST. JOSEPH NUMBER OF BEDROOMS					MARKET: SEDALIA NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED																				
SEMI-DETACHED/ROW	416	455	528	646	687	323	366	472	560	597	303	343	415	504	542	297	342	433	522	559
WALKUP	352	416	490	611	648	269	321	412	510	547	298	338	387	477	514	292	337	419	508	541
ELEVATOR 2-4 STY	388	435	563			340	390	487			349	401	502			354	408	510		
ELEVATOR 5+ STY	473	512	646			435	471	594			455	500	631			445	481	607		
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				
STRUCTURE TYPE	MARKET: SPRINGFIELD NUMBER OF BEDROOMS					MARKET: TOPEKA NUMBER OF BEDROOMS					MARKET: GARDEN CITY NUMBER OF BEDROOMS					MARKET: PITTSBURG NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED																				
SEMI-DETACHED/ROW	303	328	442	534	582	336	375	454	538	573	336	373	450	534	569	300	339	403	500	535
WALKUP	254	307	416	512	549	301	334	418	516	552	297	334	411	495	530	255	293	375	464	501
ELEVATOR 2-4 STY	302	347	435			352	387	495			329	362	463			329	362	463		
ELEVATOR 5+ STY	395	439	559			416	451	568			389	421	532			389	421	532		
MANUFACTURED HOME																				
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

STRUCTURE TYPE	MARKET: SALINA NUMBER OF BEDROOMS					MARKET: WICHITA NUMBER OF BEDROOMS					MARKET: WICHITA NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	296	333	410	494	529	321	381	473	565	601	321	381	473	565	601
SEMI-DETACHED/ROW	259	296	367	452	487	285	333	433	525	560	285	333	433	525	560
WALKUP	334	367	470			334	367	470			334	367	470		
ELEVATOR 2-4 STY	394	427	539			394	427	539			394	427	539		
ELEVATOR 5+ STY															
MANUFACTURED HOME															
	EFFECTIVE DATE 100187					EFFECTIVE DATE 100187					EFFECTIVE DATE 100187				
	TRENDED DATE 100189					TRENDED DATE 100189					TRENDED DATE 100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 7

OMAHA OFFICE

STRUCTURE TYPE	MARKET: OMAHA					MARKET: GRAND ISLAND					MARKET: LINCOLN					MARKET: NORFOLK								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4-				
DETACHED	333	399	510	580	639	272	340	431	506	574	326	390	494	567	625	272	340	431	506	574				
SEMI-DETACHED/ROW	309	373	460	569	601	263	315	413	490	554	308	373	460	562	619	263	315	413	490	554				
WALKUP	316	419	504			314	386	497			316	421	504			314	386	497						
ELEVATOR 2-4 STY	347	434	522			325	395	510			361	434	522			325	395	510						
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189
	MARKET: NORTH PLATTE						MARKET: SCOTTS BLUFF						MARKET: SCOTTS BLUFF						MARKET: SCOTTS BLUFF					
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED	284	351	442	517	565	286	358	453	532	592	276	340	431	509	567	276	340	431	509	567				
SEMI-DETACHED/ROW	273	346	410	493	542	321	406	515			321	406	515			321	406	515						
WALKUP	302	383	483			338	416	529			338	416	529			338	416	529						
ELEVATOR 2-4 STY	324	410	504																					
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 7

ST. LOUIS OFFICE

STRUCTURE TYPE	MARKET: ST. LOUIS NUMBER OF BEDROOMS					MARKET: CAPE GIRARDEAU NUMBER OF BEDROOMS					MARKET: COLUMBIA NUMBER OF BEDROOMS					MARKET: KIRKSVILLE NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	427	522	618	731	805	305	351	413	488	533	290	366	403	555	605	291	355	412	530	583
SEMI-DETACHED/ROW	384	486	579	656	724	266	314	373	461	480	283	360	393	528	582	277	350	407	525	578
WALKUP	417	523	626			295	346	417			307	386	466			302	378	477		
ELEVATOR 2-4 STY	465	591	799			325	380	557			342	456	624			335	448	638		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

STRUCTURE TYPE	MARKET: ROLLA NUMBER OF BEDROOMS				MARKET: ST. LOUIS NUMBER OF BEDROOMS			
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-
DETACHED	304	368	436	514	558	427	522	618
SEMI-DETACHED/ROW	273	346	431	509	553	384	486	579
WALKUP	297	373	471			417	523	626
ELEVATOR 2-4 STY	332	434	576			591	799	
ELEVATOR 5+ STY								
MANUFACTURED HOME								
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187	
	TRENDING DATE	100189				TRENDING DATE	100189	

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 8

DENVER, COLORADO REGIONAL OFFICE

STRUCTURE TYPE	MARKET: DENVER, CO NUMBER OF BEDROOMS					MARKET: GRAND JUNCT, CO NUMBER OF BEDROOMS					MARKET: ASPEN/VAIL NUMBER OF BEDROOMS					MARKET: FARGO, ND NUMBER OF BEDROOMS									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	458	509	596	662	753	311	358	435	540	660	728	329	380	463	578	666	750	317	355	442					
SEMI-DETACHED/ROW	350	449	495	651	736	283	314	398	500	573	302	336	426	532	614	310	360	408	508	581					
WALKUP	369	456	556			349	400	485			361	416	507			310	360	445							
ELEVATOR 2-4 STY	454	500	632			373	425	512			369	426	518			317	369	455							
ELEVATOR 5+ STY																									
MANUFACTURED HOME																									
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189					100189				
STRUCTURE TYPE	MARKET: BISMARCK, ND NUMBER OF BEDROOMS					MARKET: DICKINSON, ND NUMBER OF BEDROOMS					MARKET: HELENA, MT NUMBER OF BEDROOMS					MARKET: BILLINGS, MT NUMBER OF BEDROOMS									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	304	335	412	511	579	230	261	338	437	505	300	350	437	553	598	332	382	467	580	667					
SEMI-DETACHED/ROW	280	319	378	469	531	206	242	304	395	457	272	319	399	504	590	305	350	429	533	614					
WALKUP	297	340	415			223	266	341			339	393	483			370	424	517							
ELEVATOR 2-4 STY	304	349	425			230	275	351			353	419	496			385	450	545							
ELEVATOR 5+ STY																									
MANUFACTURED HOME																									
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189					100189				
STRUCTURE TYPE	MARKET: GREAT FALLS, MT NUMBER OF BEDROOMS					MARKET: MISSOULA, MT NUMBER OF BEDROOMS					MARKET: SALT LAKE CITY NUMBER OF BEDROOMS					MARKET: CEDAR CITY, UT NUMBER OF BEDROOMS									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	300	350	437	553	619	283	339	428	557	616	344	395	454	551	686	357	385	453	508	545					
SEMI-DETACHED/ROW	272	319	399	504	586	252	324	386	504	591	288	380	443	542	635	277	376	433	502	524					
WALKUP	339	393	488			326	386	486			360	441	534			352	424	490							
ELEVATOR 2-4 STY	363	419	515			353	415	516			397	461	556			371	472	542							
ELEVATOR 5+ STY																									
MANUFACTURED HOME																									
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189					100189				
STRUCTURE TYPE	MARKET: VERNAL, UT NUMBER OF BEDROOMS					MARKET: SIOUX FALLS, SD NUMBER OF BEDROOMS					MARKET: PIERRE, SD NUMBER OF BEDROOMS					MARKET: RAPID CITY, SD NUMBER OF BEDROOMS									
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+					
DETACHED	219	277	314	485	578	313	351	416	509	573	266	332	432	537	613	350	404	478	579	652					
SEMI-DETACHED/ROW	172	226	309	420	506	290	324	384	470	528	260	314	389	496	567	322	369	446	540	607					
WALKUP	240	301	397			304	339	416			298	343	432			351	392	478							
ELEVATOR 2-4 STY	258	321	419			311	353	426			306	358	442			358	406	488							
ELEVATOR 5+ STY																									
MANUFACTURED HOME																									
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187					100187					100187				
	TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE					TRENDED DATE				
	100189					100189					100189					100189					100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 8

DENVER, COLORADO REGIONAL OFFICE

STRUCTURE TYPE	MARKET: CASPER, WY			MARKET: CHEYENNE, WY			MARKET: CODY, WY		
	NUMBER OF BEDROOMS			NUMBER OF BEDROOMS			NUMBER OF BEDROOMS		
	-0-	-1-	-2-	-0-	-1-	-2-	-0-	-1-	-2-
DETACHED			541			543			577
SEMI-DETACHED/ROW	315	362	438	318	363	438	328	381	467
WALKUP	290	333	403	293	334	404	300	348	428
ELEVATOR 2-4 STY	352	402	485	353	403	486	367	422	517
ELEVATOR 5+ STY	375	427	512	377	428	513	393	450	545
MANUFACTURED HOME									
	EFFECTIVE DATE 100187			EFFECTIVE DATE 100187			EFFECTIVE DATE 100187		
	TRENDED DATE 100189			TRENDED DATE 100189			TRENDED DATE 100189		

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 9

HONOLULU OFFICE

STRUCTURE TYPE	MARKET: HONOLULU NUMBER OF BEDROOMS					MARKET: GUAM NUMBER OF BEDROOMS					MARKET: KAUAI NUMBER OF BEDROOMS					MARKET: MAUI NUMBER OF BEDROOMS								
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+				
DETACHED	582	621	849	1016	1146	502	559	641	711	838	620	758	889	1005	1090	671	755	796	995	1056				
SEMI-DETACHED/ROW	521	598	692	1008	1134	376	445	530	603		523	639	696	981	1066	491	635	767	896	956				
WALKUP	594	797	966								552	670	726			523	667	800						
ELEVATOR 2-4 STY																								
ELEVATOR 5+ STY																								
MANUFACTURED HOME																								
	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187	EFFECTIVE DATE					100187
	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189	TRENDED DATE					100189

STRUCTURE TYPE	MARKET: HILO NUMBER OF BEDROOMS				MARKET: KONA NUMBER OF BEDROOMS				EFFECTIVE DATE			
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	100187	100189
DETACHED	509	532	621	779	869	617	676	764	909	1006		
SEMI-DETACHED/ROW	433	479	591	750	848	501	572	667	814	894		
WALKUP	467	510	625			531	602	699				
ELEVATOR 2-4 STY												
ELEVATOR 5+ STY												
MANUFACTURED HOME												
	EFFECTIVE DATE				100187	EFFECTIVE DATE				100187		
	TRENDED DATE				100189	TRENDED DATE				100189		

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 9

LOS ANGELES OFFICE

STRUCTURE TYPE	MARKET: LOS ANGELES NUMBER OF BEDROOMS					MARKET: BAKERSFIELD NUMBER OF BEDROOMS					MARKET: SANTA BARBARA NUMBER OF BEDROOMS					MARKET: VENTURA NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	577	670	781	886	1001	424	479	538	681	769	664	669	814	906	1025	569	590	655	800	872
SEMI-DETACHED/ROW	518	597	721	859	935	368	451	514	656	721	473	527	682	773	839	506	554	621	762	814
WALKUP	560	644	777			386	472	536			492	552	705			529	577	646		
ELEVATOR 2-4 STY	704	799	1031			552	631	738			640	715	915			690	750	865		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			
STRUCTURE TYPE	MARKET: PASO ROBLES NUMBER OF BEDROOMS					MARKET: LANCASTER NUMBER OF BEDROOMS					MARKET: OXNARD NUMBER OF BEDROOMS					MARKET: SANTA ANA NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	515	520	647	777	865	494	498	601	696	814	573	590	655	800	872	706	713	827	1001	1086
SEMI-DETACHED/ROW	433	488	601	717	775	389	469	576	666	759	506	554	621	762	814	570	670	770	924	979
WALKUP	453	510	626			416	495	601			529	577	646			573	690	795		
ELEVATOR 2-4 STY	616	688	851			586	670	831			690	750	865			730	861	1011		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			
STRUCTURE TYPE	MARKET: SAN DIEGO NUMBER OF BEDROOMS					MARKET: EL CAJON NUMBER OF BEDROOMS					MARKET: SANTA MARIA NUMBER OF BEDROOMS					MARKET: SAN BERNARDINO NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	563	568	677	768	901	563	568	677	768	901	538	594	686	769	857	498	526	628	730	851
SEMI-DETACHED/ROW	458	522	632	742	796	458	522	632	742	796	422	478	554	616	677	447	504	593	598	780
WALKUP	495	572	690			495	572	690			446	501	577			478	525	615		
ELEVATOR 2-4 STY	593	692	847			593	692	847			599	670	793			646	697	835		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 9

PHOENIX OFFICE

STRUCTURE TYPE	MARKET: PHOENIX					MARKET: CASA GRANDE					MARKET: FLAGSTAFF					MARKET: TUCSON				
	NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	445	511	595	708	777	364	411	481	572	649	418	459	555	658	737	363	432	525	608	693
SEMI-DETACHED/ROW	391	482	582	682	727	351	406	475	555	616	402	446	547	643	706	344	407	520	592	653
WALKUP	413	504	609			382	428	497			424	468	569			366	438	552		
ELEVATOR 2-4 STY	501	597	732								525	575	707			498	592	766		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189				TRENDING DATE	100189			

STRUCTURE TYPE	MARKET: YUMA					MARKET: KINGMAN					MARKET: SIERRA VISTA				
	NUMBER OF BEDROOMS					NUMBER OF BEDROOMS					NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED			545	617	701			529	611	698			532	582	670
SEMI-DETACHED/ROW	397	436	519	576	653	402	437	514	578	639	352	397	509	569	643
WALKUP	382	424	512	566	625	376	424	508	565	627	336	382	498	555	613
ELEVATOR 2-4 STY	412	446	534			399	458	530			358	404	520		
ELEVATOR 5+ STY															
MANUFACTURED HOME															
	EFFECTIVE DATE					EFFECTIVE DATE					EFFECTIVE DATE				
	100187					100187					100187				
	TRENDING DATE					TRENDING DATE					TRENDING DATE				
	100189					100189					100189				

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)REGION 9
SACRAMENTO OFFICE

STRUCTURE TYPE	MARKET: SACRAMENTO NUMBER OF BEDROOMS					MARKET: REDDING NUMBER OF BEDROOMS					MARKET: PLACERVILLE NUMBER OF BEDROOMS					MARKET: YREKA NUMBER OF BEDROOMS				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	493	504	576	633	696	409	475	526	579	650	523	528	603	666	731	360	442	541	626	674
SEMI-DETACHED/ROW	384	457	521	626	701	347	403	472	520	654	396	473	540	657	737	305	372	481	576	658
WALKUP	437	481	577			367	423	522			466	531	633			325	392	503		
ELEVATOR 2-4 STY	592	650	792																	
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

STRUCTURE TYPE	MARKET: S. LAKE TAHOE NUMBER OF BEDROOMS				EFFECTIVE DATE	TRENDED DATE	
	-0-	-1-	-2-	-3-			
DETACHED	535	540	655	760	816		
SEMI-DETACHED/ROW	435	512	584	699	767		
WALKUP	474	532	625				
ELEVATOR 2-4 STY							
ELEVATOR 5+ STY							
MANUFACTURED HOME							
	EFFECTIVE DATE	100187					
	TRENDED DATE	100189					

PREPARED ON 021389

APPROVED FOR THE REGIONAL DIRECTOR
BY THE REGIONAL DIRECTOR
DATE 05/11/89

APPROVED FOR THE REGIONAL DIRECTOR
BY THE REGIONAL DIRECTOR
DATE 05/11/89

APPROVED FOR THE REGIONAL DIRECTOR
BY THE REGIONAL DIRECTOR
DATE 05/11/89

REGION 9

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 9

SAN FRANCISCO REGIONAL OFFICE

MARKET: SAN FRANCISCO		MARKET: FRESNO		MARKET: MODESTO		MARKET: SAN JOSE	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	833 865 1027 1215 1292	336 419 489 673 736	384 389 467 569 627	578 584 712 864 950	578 584 712 864 950	578 584 712 864 950	578 584 712 864 950
WALKUP	593 686 897 1093 1200	310 404 478 618 691	363 384 461 564 622	481 578 688 820 895	481 578 688 820 895	481 578 688 820 895	481 578 688 820 895
ELEVATOR 2-4 STY	652 788 1007	423 526 656	469 526 659	516 599 695	516 599 695	516 599 695	516 599 695
ELEVATOR 5+ STY	829 962 1220						
MANUFACTURED HOME							
	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187
	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189
MARKET: OAKLAND		MARKET: MARIN		MARKET: EUREKA		MARKET: SANTA ROSA	
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	564 668 850 973 1075	564 668 850 973 1075	353 417 531 688 749	504 552 667 808 873	504 552 667 808 873	504 552 667 808 873	504 552 667 808 873
WALKUP	523 638 792 897 994	523 638 792 897 994	348 409 508 665 702	469 536 648 793 856	469 536 648 793 856	469 536 648 793 856	469 536 648 793 856
ELEVATOR 2-4 STY	590 646 871	590 646 871	444 541 647	580 668 825	580 668 825	580 668 825	580 668 825
ELEVATOR 5+ STY	805 880 1147	805 880 1147					
MANUFACTURED HOME							
	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187
	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189
MARKET: SANTA CRUZ		MARKET: RENO		MARKET: LAS VEGAS			
STRUCTURE TYPE	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS		
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+		
SEMI-DETACHED/ROW	496 502 676 864 951	432 496 612 747 823	401 460 535 688 751	401 460 535 688 751	401 460 535 688 751		
WALKUP	418 497 636 820 895	404 475 585 680 754	377 436 529 680 735	377 436 529 680 735	377 436 529 680 735		
ELEVATOR 2-4 STY	516 637 768	518 607 784	489 554 707	489 554 707	489 554 707		
ELEVATOR 5+ STY							
MANUFACTURED HOME							
	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187	EFFECTIVE DATE 100187		
	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189	TRENDING DATE 100189		

PREPARED ON 021389

**SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)**

REGION 10

ANCHORAGE OFFICE

STRUCTURE TYPE	MARKET: ANCHORAGE		MARKET: FAIRBANKS		MARKET: JUNEAU		MARKET: KETCHIKAN	
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	354 448 548 627 737	354 448 548 627 737	400 585 667 749 858	400 585 667 749 858	454 576 681 756 828	454 576 681 756 828	468 475 617 686 780	468 475 617 686 780
WALKUP	340 425 530 612 694	340 425 530 612 694	350 512 654 732 812	350 512 654 732 812	418 519 655 727 802	418 519 655 727 802	454 465 607 680 754	454 465 607 680 754
ELEVATOR 2-4 STY	365 450 555	365 450 555	400 537 679	400 537 679	443 544 680	443 544 680	483 490 632	483 490 632
ELEVATOR 5+ STY								
MANUFACTURED HOME								
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189	TRENDING DATE	100189

MARKET: KENAI PENINSULAR

STRUCTURE TYPE	MARKET: KENAI PENINSULAR		MARKET: SITKA	
	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS	NUMBER OF BEDROOMS
DETACHED	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+	-0- -1- -2- -3- -4+
SEMI-DETACHED/ROW	344 413 547 606 688	344 413 547 606 688	322 412 521 628 706	322 412 521 628 706
WALKUP	331 397 525 583 662	331 397 525 583 662	311 398 496 585 672	311 398 496 585 672
ELEVATOR 2-4 STY	356 422 551	356 422 551	404 468 553	404 468 553
ELEVATOR 5+ STY				
MANUFACTURED HOME				
	EFFECTIVE DATE	100187	EFFECTIVE DATE	100187
	TRENDING DATE	100189	TRENDING DATE	100189

PREPARED ON 021389

SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 10

PORTLAND OFFICE

STRUCTURE TYPE	MARKET: PORTLAND					MARKET: BEND					MARKET: COOS BAY					MARKET: BOISE				
	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+	-0-	-1-	-2-	-3-	-4+
DETACHED	318	379	451	549	592	277	297	344	422	474	260	294	344	423	471	319	352	391	509	551
SEMI-DETACHED/ROW	306	376	437	504	566	216	278	323	399	442	231	280	335	409	458	286	339	385	485	528
WALKUP	317	384	454			230	299	342			242	294	350			311	349	399		
ELEVATOR 2-4 STY	369	455	616													384	434	517		
ELEVATOR 5+ STY																				
MANUFACTURED HOME																				
	EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187				EFFECTIVE DATE	100187			
	TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189				TRENDED DATE	100189			

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SCHEDULE A- FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION
(INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAMS)

REGION 10

SEATTLE REGIONAL OFFICE

STRUCTURE TYPE	MARKET: SEATTLE			MARKET: BELLINGHAM			MARKET: OLYMPIA			MARKET: YAKIMA		
	-0-	-1-	-2-	-3-	-4+	NUMBER OF BEDROOMS	-0-	-1-	-2-	-3-	-4+	NUMBER OF BEDROOMS
DETACHED	351	433	528	627	727	628 695 789	307	350	424	523	577	345 365 393 492 569
SEMI-DETACHED/ROW	343	426	523	595	612	478 567 646	262	335	414	500	562	281 353 432
WALKUP	384	459	567			280 352 433						
ELEVATOR 2-4 STY												
ELEVATOR 5+ STY												
MANUFACTURED HOME												
	EFFECTIVE DATE	100187				100189	EFFECTIVE DATE	100187				100187
	TRENDING DATE	100189				100189	TRENDING DATE	100189				100189

STRUCTURE TYPE	MARKET: SPOKANE					NUMBER OF BEDROOMS	MARKET: SEATTLE					NUMBER OF BEDROOMS	MARKET: BELLINGHAM					NUMBER OF BEDROOMS	MARKET: OLYMPIA					NUMBER OF BEDROOMS	MARKET: YAKIMA					NUMBER OF BEDROOMS
	-0-	-1-	-2-	-3-	-4+		-0-	-1-	-2-	-3-	-4+		-0-	-1-	-2-	-3-	-4+		-0-	-1-	-2-	-3-	-4+		-0-	-1-	-2-	-3-	-4+	
DETACHED	288	333	415	481	552	288 333 415 481 552	307	350	424	523	577	345 365 393 492 569	297	342	422	493	577	307	350	424	523	577	345 365 393 492 569	297	342	422	493	577		
SEMI-DETACHED/ROW	252	309	382	459	511	270 345 399	262	335	414	500	562	281 353 432	245	319	381	469	551	252	309	382	459	511	270 345 399	262	335	414	500	562		
WALKUP	381	412	532				280 352 433						263	343	398			381	412	532				280 352 433						
ELEVATOR 2-4 STY																														
ELEVATOR 5+ STY																														
MANUFACTURED HOME																														
	EFFECTIVE DATE	100187				100189	EFFECTIVE DATE	100187				100187	EFFECTIVE DATE	100187																
	TRENDING DATE	100189				100189	TRENDING DATE	100189				100189	TRENDING DATE	100189																

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BILLING CODE 4210-27-C

Name		Address		City		State		Zip		Phone		Fax		E-mail		Notes	
John Doe		123 Main St		New York		NY		10001		(212) 555-1234		(212) 555-5678		john.doe@ny.com		Active	
Jane Smith		456 Elm St		Los Angeles		CA		90001		(310) 555-9876		(310) 555-4321		jane.smith@la.com		Inactive	
Bob Johnson		789 Oak St		Chicago		IL		60601		(312) 555-2345		(312) 555-6789		bob.johnson@chicago.com		Active	
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Test Report

Monday
May 22, 1989

Part VI

Department of Housing and Urban Development

Office of the Assistant Secretary for
Housing—Federal Housing Commissioner

24 CFR Part 280

Nehemiah Housing Opportunity Grants
Program; Final Rule

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing-Federal Housing Commissioner

24 CFR Part 280

[Docket No. R-89-1403; FR-2478]

RIN 2502-AE45

Nehemiah Housing Opportunity Grants Program

AGENCY: Office of the Assistant Secretary for Housing-Federal Housing Commissioner, HUD.

ACTION: Final rule.

SUMMARY: Title VI of the Housing and Community Development Act of 1987 (Pub. L. 100-242, approved February 5, 1988) (the Act) establishes the Nehemiah Housing Opportunity Grants Program (NHOP). Title VI authorizes HUD to make grants to nonprofit organizations to enable them to provide loans to families purchasing homes that are constructed or substantially rehabilitated in accordance with a HUD-approved program. The loans to the family: May not exceed \$15,000; bear no interest; are secured by a second mortgage held by the Secretary; and are repayable to the Secretary upon the sale, lease or transfer of the property. This notice announces the final rules governing NHOP.

DATES: Effective date: July 13, 1989.

FURTHER INFORMATION CONTACT: Morris Carter, Director, Single Family Development Division, Office of Insured Single Family Housing, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, DC 20410; telephone (202) 755-8720. Hearing or speech-impaired individuals may call HUD's TDD number (202) 426-0015. (These telephone numbers are not toll-free.)

SUPPLEMENTARY INFORMATION:

I. Information collection requirements

The information collection requirements contained in this rule have been submitted to the Office of Management and Budget (OMB) for review under the Paperwork Reduction Act of 1980. No person may be subjected to a penalty for failure to comply with these information collection requirements until they have been approved and assigned an OMB control number. The OMB control number, when assigned, will be announced by separate notice in the *Federal Register*. Public reporting burden for this collection of information is estimated to

include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Information on the estimated public reporting burden is provided under the Preamble heading *Other Matters*. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Housing and Urban Development, Rules Docket Clerk, 451 Seventh Street, SW., Room 10276, Washington, DC 20410 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington DC 20503.

II. Background

On February 5, 1988, President Reagan approved the Housing and Community Development Act of 1987 (Pub. L. 100-242) (the Act). Title VI of the Act establishes the Nehemiah Housing Opportunity Grants Program (NHOP). Under NHOP, HUD is authorized to make grants to nonprofit organizations to enable them to provide loans to families purchasing homes that are constructed or substantially rehabilitated in accordance with a HUD-approved program.

On November 8, 1988 (53 FR 45216), HUD published a notice announcing proposed rules governing NHOP. HUD received 26 comments in response to the proposed rule. The issues raised by the commenters are summarized below.

III. Discussion of Public Comments

A. Statutory Constraints

In many instances, commenters suggested revisions that conflict with the statutory NHOP requirements. The statutorily impermissible suggestions were:

1. Include Public Housing Authorities, entitlement cities under the Community Development Block Grants program (CDBG program), and public nonprofit organizations as eligible recipients. Section 603(a) states that HUD will provide assistance under the program to nonprofit organizations. Section 602(5) defines a nonprofit organization as a private nonprofit corporation or other private nonprofit legal entity that is approved by the Secretary as to financial responsibility. While entities other than nonprofit organizations cannot be recipients, they may assist the recipient in the development of a program in several different capacities. For example, the unit of general local government must approve the proposed program (§ 280.215(b)(5)); public and

private entities may contribute land necessary to make the program feasible (§ 280.220(b)(1)), or make other contributions that will reduce the cost to families of purchasing homes under the program (§ 280.220(b)(2)); and States and units of general local government may provide the first mortgage under a home loan program in association with the program (§ 280.320(1)(ii)).

2. Redefine "home" to permit the development of large multifamily structures. Section 602(2) defines home as any one- to four-family dwelling. The term includes any dwelling unit in a condominium project or cooperative project consisting of *not more than four dwelling units*, any townhouse, and any manufactured home.

3. Provide reimbursement of program costs to recipients. Section 604 provides that recipients shall use assistance to provide loans to families purchasing homes constructed or substantially rehabilitated under an approved program. No other use of NHOP funds is authorized by the statute.

4. Reduce the minimum program size requirements contained in proposed § 280.105(a). The minimum program size requirements reflect the statutory requirements contained in section 606(e)(1).

5. Eliminate the requirement that the program must be located in Census tracts (or identifiable neighborhoods within Census tracts) in which the median family income is not more than 80 percent of the median family income for the area. Section 606(e)(3) imposes this requirement.

6. Revise the selection procedures to provide funds on an entitlement basis, rather than by a competitive selection. Section 607 imposes six statutory selection criteria for the competitive ranking of applications.

7. Eliminate the ranking criterion that addresses the extent to which financial and other contributions will reduce the cost to families purchasing homes constructed or substantially rehabilitated under a program. Use of this ranking criterion is required under section 607(a)(2).

8. Consider additional criteria in the ranking of applications. Suggestions included such factors as the extent to which programs will develop single family units or condominium projects, and the extent to which the application is consistent with, and advances the purposes of, the National Historic Preservation Act. Section 607 specifies the six ranking criteria that HUD must apply in the selection of applications. The statute does not authorize HUD to go beyond the listed criteria.

9. Revise the provision that states that construction or substantial rehabilitation of homes (other than display homes) may not commence until 25 percent of the homes under the program are contracted for sale to purchasers who intend to live in the homes, and the required downpayments for such homes are made. Proposed revisions included:

- Eliminate the minimum participation requirement. Section 606(c) imposes the requirement.
- Provide that a lease and time-limited option to purchase will satisfy the minimum participation requirement. Section 606(c) requires a contract for sale.
- Substitute various requirements (e.g., earnest money deposits) for the requirement that the downpayment must be paid before the commencement of construction or substantial rehabilitation. Section 606(c) prohibits construction until 25 percent of the units are contracted for sale and the required downpayments are made. Section 605(c)(1) requires downpayments of not less than 10 percent of the purchase price (except under the limited circumstances described below).
- Apply the 25 percent downpayment requirement to *separate phases* of the program. The minimum participation requirement under section 606(c) requires that *not less than* 25 percent of the homes to be constructed or substantially rehabilitated must be contracted for sale and the required downpayment made.

10. Provide more flexible income eligibility standards for purchasers. Except as described immediately below, section 605(b) requires that the family income on the date of purchase cannot exceed the higher of the median income for a family of four in the metropolitan statistical area (MSA) involved, or the national median income for a family of four.

11. Permit the modification of the income eligibility standard to permit up to 25 percent of the families purchasing homes to have a family income on the date of purchase that is between 100 and 115 percent of the median family income for the MSA. Under section 605(b)(1)(A), HUD may modify the income eligibility standard in the MSA for up to 15 percent of the families.

12. Reduce the downpayment required from the family purchasing a home under NHOP. Section 605(c) requires each family to make a downpayment of 10 percent of the sales price of the home unless the nonprofit organization determines a higher downpayment to be

appropriate, or the first mortgage on the home is held by a State or unit of general local government and the program provides for a lower downpayment.

13. Eliminate the requirement that the recipient must pay interest to families on downpayments in situations where the cost of computing the interest will exceed the interest payment. Section 605(c)(2) provides that downpayments shall accrue interest, from the date on which the downpayment is made through settlement, at a rate not less than the passbook rate, and that such interest shall be paid by the nonprofit organization to the family.

14. Increase the maximum amount of the NHOP loan. Section 604(b)(3) sets the maximum loan amount at \$15,000.

15. Permit the recipient to hold the second mortgage, make the loan repayable to the recipient, and permit the recipient to use repayments for various purposes. Section 604(b) states that the NHOP loan is to be secured by a second mortgage held by the Secretary and repayable to the Secretary upon the sale, lease or transfer of the property. Repayments are included in the Nehemiah Housing Opportunities revolving fund which is used by HUD to provide assistance to nonprofit organizations to carry out NHOP (see section 609).

B. Assistance Provided Under Other HUD Programs

Except for assistance made available under the CDBG program, a recipient's program is ineligible for assistance under other HUD programs. (Families purchasing homes, however, may be eligible for mortgage insurance under various HUD programs.) Two commenters argued that the prohibition against the use of other HUD funds, when combined with the \$15,000 limitation on the amount of the loan under § 280.322(a)(2), may be a serious impediment to the development of some programs. The commenters urged HUD to permit recipients to use other HUD funds where necessary to achieve feasibility.

HUD has retained the prohibition. This provision is necessary to ensure that the recipient, States, units of general local government, and other members of the community are committed to the development and operation of a successful program—an involvement that is essential to the success of any attempt to rebuild the depressed areas of the cities and to create sound and attractive neighborhoods. The provision also prevents undue reliance on assistance from the Federal government and makes

sure that the most effective use is made of limited Federal funds. This prohibition is consistent with the statutory emphasis on non-Federal funding (section 607(a)(3) of the Act provides that HUD will rank applications based on the extent to which the program will produce the greatest number of housing units for the least amount of NHOP assistance), and with the statute's emphasis on non-Federal contributions of land, and financial and other contributions (see section 607(a)(1) and (2)).

C. Program Eligibility Requirements

1. *Construction or substantial rehabilitation of homes.* Assistance under NHOP is limited to programs that involve the construction or substantial rehabilitation of homes. Proposed § 280.5 stated that a home would be substantially rehabilitated if the rehabilitation costs exceed 60 percent of the maximum sales price of the home, or if the home to be rehabilitated is a vacant, abandoned structure. At the request of a commenter, the definition of substantial rehabilitation has been clarified to state that substantial rehabilitation is determined by reference to the maximum sales price of the home after rehabilitation. Additionally, the definition of rehabilitation has been revised for clarity (e.g., the final rule includes the cost of tools as an eligible rehabilitation cost).

2. *Program size requirements.* As noted above, programs must meet certain minimum size limitations. The statute permits the Secretary to waive the program size limitations if the Governor of the State or the unit of general local government requests the waiver and certifies, with supporting documentation, that the requirements would prevent the State or the unit of general local government from using the program effectively. HUD will determine that the program size requirement will prevent the effective use of the program if three conditions are met. The final rule clarifies two of these conditions, as follows:

—Under § 280.105(b)(2), HUD will consider whether the construction or substantial rehabilitation of a program of the proposed size will result in cost reductions through economies of scale comparable to the cost reductions achieved by other programs eligible under NHOP. The proposed rule included examples of cost reductions. These examples have been revised so that they address only those cost reductions generated through economies of scale. A related

provision at § 280.110(b)(2)(ii) has also been revised.

Under § 280.105(b)(3), HUD will consider whether the program, by itself or together with other improvement efforts, will result in a substantial improvement in the overall quality and long term viability of the neighborhood. Improvement efforts may include the construction or rehabilitation of other structures; improvements to public facilities or services or the expansion of private enterprise in the area. The final rule specifies that improvement efforts include the construction and rehabilitation of a commercial property or an existing subdivision. A similar clarification has been made to a related provision at § 280.110(b)(iii).

3. *Program location.* (a) Neighborhood requirements. All homes constructed or substantially rehabilitated under NHOP must be concentrated in a single neighborhood and located on contiguous parcels of land. Programs located in up to four neighborhoods are permitted if certain requirements are met.

Under the proposed rule, "neighborhood" was defined as an area that (a) has a population of at least 2,500 persons, and (b) is distinguishable from other areas on the basis of one or more significant features, such as: (1) Natural or man-made boundaries; (2) a locally recognized name, formal or informal; (3) an identity as a residential subdivision; (4) an identity as an elementary school district; or (5) distinctive population, social, or housing characteristics. Several commenters urged HUD to eliminate the minimum population requirement. These commenters argued that the requirement will be difficult to meet in Western states and rural areas; other criteria adequately define neighborhood; and the requirement will unnecessarily limit NHOP flexibility. The final rule eliminates the minimum population requirement.

Under proposed § 280.110(b)(2), homes may be constructed or substantially rehabilitated in up to four identifiable neighborhoods, each of which consists of contiguous parcels of land, provided certain conditions are met. One commenter observed that the proposed rule seemed to require all parcels in a program to be contiguous, even if the program is located in multiple neighborhoods. The final rule clarifies that where a program is located in more than one neighborhood, all homes in the program are not required to be located on contiguous parcels of land, as long as all homes constructed or substantially rehabilitated within each neighborhood are located on contiguous parcels of land.

The proposed rule defined contiguous parcels of land as parcels of land that abut, or if the parcels of land do not abut, parcels of land that are divided only by natural or man-made boundaries (such as streets, rights-of-way, or similar divisions), and that are located within the same neighborhood (see proposed § 280.5). Commenters objected that the proposed definition was too restrictive; would prevent the use of NHOP in many otherwise eligible areas; and may result in the clearance of otherwise sound buildings in order to permit a program that meets the contiguous requirement.

In response to commenters' concerns, contiguous parcels of land has been defined as parcels of land that: abut; are divided only by natural or man-made boundaries (such as streets, rights-of-way, or similar divisions); or are closely located. Parcels will be considered to be closely located if: the majority of homes to be constructed or substantially rehabilitated in the neighborhood are located on parcels that abut; are divided by natural or man-made boundaries (such as streets, rights-of-way, or similar divisions); or are divided only by a small number of lots that do not, in the Secretary's determination, detract from the objective of fostering a concentrated effort to rebuild depressed areas and to create sound and attractive neighborhoods.

The remaining homes to be constructed or substantially rehabilitated in the neighborhood must be located on parcels in one or more areas, in which the parcels for each such subordinate area meet the same requirements that the main area must meet. The subordinate area or areas can be separated from the main area by a distance, at the closest point, of no more than two city blocks (exclusive of any natural or man-made boundary).

(b) Census tract or neighborhood income limitations. Section 606(e)(3) of the Act provides that programs must be located in Census tracts (or identifiable neighborhoods within Census tracts) in which the median family income is not more than 80 percent of the median family income for the area. Section 606(e)(3) also provides that "median family income" and "area" (as determined for the purposes of assistance under section 8 of the United States Housing Act of 1937) are to be used to determine whether a program meets the median family income requirements. In accordance with these requirements, proposed § 280.110(a)(1) stated that HUD would use median family incomes derived from the most recent decennial Census and the areas established under Section 8 of the

USHA of 1937 for the purpose of determining the median family income of the area in which the program is to be located.

A commenter asked whether the median family income in high cost MSAs will be limited to the national median income instead of the actual median income for the MSA. The commenter has confused *median family income* with the *income limits* for various family sizes, as established under section 8. In the section 8 program, the *income limits* for various family sizes are based on the Department's estimates of median family income. For most areas, the lower income limit for a family of four is set at 80 percent of the median family income. Adjustments, however, are made to income limits in areas that have unusually high or low income to housing cost relationships. For example, in FY-1989 the maximum income limit for a four-person family in several areas was capped at the United States median family income of \$34,000. HUD does not, however, adjust median family income on this basis.

(c) Location in MSA. Section 605(b) of the Act contains the eligibility requirements for families purchasing homes under NHOP. Section 605(b)(1)(A) provides that the family must meet certain income requirements based on the median family income for a family of four persons in the MSA involved. In the proposed rule, HUD determined that the family income provision implicitly imposed the additional requirement that all programs must be located in an MSA (see proposed rule at § 280.110(c)).

Many commenters objected to the requirement. Commenters argued that the MSA requirement was contrary to legislative intent; that the proposed rule would arbitrarily exclude rural areas from participation in NHOP; and that the inclusion of non-MSA areas would promote the purposes of NHOP, since non-MSAs have a great need for homeownership assistance and may not have access to other Federal funding sources.

Upon a review of the legislative history of NHOP, HUD agrees that the MSA requirement should be deleted. For example, the House Committee Report (H.R. Rep. No. 100-122, 100 Cong. 1st Sess. 96-97 (1987)) stated that purchasers located in non-MSAs would be subject to certain income eligibility requirements. The House Report also explained that the minimum size requirements contained in the legislation had been reduced in order to provide assistance in smaller cities. Moreover,

during Senate consideration of NHOP, Senator Nickles expressed concern that assistance would not be provided within certain States, in cities with populations under 20,000, and in rural areas. Senator D'Amato explained that such programs would be required to provide a minimum of 50 homes, but would not be precluded from participation. 134 Cong. Rec. S4158-59 (Daily Ed. March 31, 1987). Also see 134 Cong. Rec. S4197-98.

In accordance with this change, the eligibility of families purchasing homes in programs that are *not* located in MSAs will be determined by reference to the national median income. The eligibility of families purchasing homes in programs that are located in MSAs will continue to be determined by reference to the higher of the national or MSA median income. As a related matter, the following changes have been made in the final rule:

- The requirement that applicants must identify the MSA in which the program will be located has been deleted (§ 280.205(b)(2)(i)).
- The requirement that applicants must provide evidence of a demand for homes in the MSA has been revised to require a showing of need within the area to be served by the program (§§ 280.205(b)(4) and 280.215(b)(4)).
- The ranking criterion that requires HUD to consider the degree to which each program will produce the maximum number of homes for the least assistance, taking into account the cost differences among different MSAs, has been revised to refer to cost differences between different market areas (§ 280.220(b)(3)). Similarly, the ranking criterion that requires HUD to consider the extent to which the applicant will use construction or rehabilitation methods that will reduce the cost per square foot below the average construction cost per square foot in the MSA has been revised to refer to the average construction cost per square foot in the market area of the program (§ 280.220(b)(5)). Construction cost data and market areas will be determined by reference to the commercial construction cost indices that will be announced in a NOFA.
- The provision governing the minimum interest rate to be paid to families on downpayments has been revised to refer to the rates offered within the State, rather than within the MSA.

D. Application and Selection Process

1. *Application requirements.* The proposed rule prohibited applications jointly submitted by two or more entities (see definition of applicant at § 280.5). The final rule has been revised to permit

applications jointly submitted by two or more nonprofit organizations.

Minimum application requirements are described at § 280.205. One commenter argued that § 280.205(b)(2)(iii), which requires the submission of architectural drawings, imposes unnecessary expenses on applicants. The commenter suggested that HUD permit applicants to submit architectural drawings or detailed work write-ups, as appropriate. The commenter has misunderstood the proposed application requirement. This section does not require the submission of detailed working drawings. Rather, it requires architectural drawings of the site (i.e., site plans) and the floor plans for some typical units. The provision is revised for clarity.

2. *Other Federal requirements.* Proposed § 280.207 addressed other applicable Federal requirements, including nondiscrimination and equal opportunity requirements; lead-based paint requirements; flood insurance purchase requirements; requirements of OMB Circulars governing the acceptance and use of assistance by nonprofit organizations; conflict of interest provisions; provisions applicable to the use of debarred, suspended or ineligible contractors; and audit requirements.

(a) *Relocation assistance.* One commenter objected that the proposed rule did not contain relocation assistance provisions for persons displaced as a result of NHOP. The commenter asserted that the absence of relocation payments has brought the prototype Nehemiah program in New York to a standstill. The commenter argued that a system for the prompt payment of adequate relocation benefits must be imposed. The commenter requested that HUD provide a 60-day public comment period for such relocation requirements, or delay publication of the final rule until rules are published implementing the changes to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA) (42 U.S.C. 4601) (URA) that were made by the Uniform Relocation Act Amendments of 1987, Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. 100-17, approved April 2, 1987). Effective April 2, 1989, certain relocation assistance requirements apply to programs or projects that involve acquisition, rehabilitation, or demolition, and that receive Federal financial assistance.

When the proposed NHOP rule was published, HUD, with the Department of Transportation as the lead agency, was engaged in formulating uniform

government-wide URA regulations for Federal and federally assisted programs. Accordingly, the proposed NHOP rule did not include relocation provisions. HUD, however, stated that the NHOP final rule would address the applicability of the URA, and would include appropriate relocation provisions implementing the 1987 amendments. The government-wide rule was published on March 2, 1989 (54 FR 8912).

HUD does not anticipate that approved programs will cause a significant amount of displacement. The statute provides that NHOP funds may be used only for *loans* to families purchasing homes under an approved program. Thus, the recipient, not HUD, will be required to fund relocation payments through the sales price of the homes or through financial and other contributions to the program. To the extent that recipients will develop such programs, HUD has added the following relocation provisions to the final rule at § 280.207(b):

- The URA and government-wide implementing regulations at 49 CFR Part 24 set forth relocation assistance requirements that apply to the displacement of any person (family, individual, business, nonprofit organization or farm) as a direct result of acquisition, rehabilitation or demolition for a program assisted under this part.
- A displacement from the real property is covered by the URA if it occurs on or after the date that an application is submitted under Part 280 and the application is later approved and funded, unless: (i) The person has been evicted for cause based upon a serious or repeated violation of the material terms of the lease or occupancy agreement and HUD determines that the eviction was not undertaken for the purpose of evading the obligation to provide relocation assistance; (ii) The person moved into the real property after the application was submitted, but received prior written notice of the expected displacement; (iii) The person is an owner-occupant and has been informed that the real property will not be acquired for the program under the threat of eminent domain; or (iv) The applicant (recipient) determines that the displacement did not occur as a direct result of the acquisition, rehabilitation, or demolition for the program, and HUD concurs in that determination.
- If a person is displaced from the real property before the submission of the application and either HUD or the

applicant (recipient) determines that the displacement was a direct result of the acquisition, rehabilitation, or demolition, the person shall be eligible for relocation assistance as a displaced person.

—The applicant (recipient) may, at any time, request a HUD determination whether a displacement will be covered by the URA and the implementing regulations.

—A displaced persons' eligibility for relocation assistance is subject to the requirements in 49 CFR Part 24.

(b) *Conflicts of interest.* A nonprofit organization argued that the conflict of interest provisions contained in the proposed rule could be interpreted to in a manner that would limit their participation in NHOP. The commenter argued that it is counterproductive to impose broad conflict of interest provisions on all entities where the real and legitimate purpose of the provision is to prevent the manipulation of nonprofit organizations that are formed primarily to benefit for-profit companies or individuals.

The proposed conflict of interest provisions were based on similar requirements imposed in other programs using private nonprofit organizations as recipients (see e.g., §§ 840.330(c) and 841.330(e)). HUD is not aware that these provisions have resulted in unwarranted restrictions on participation in such programs by nonprofit organizations. The proposed conflict of interest provisions are adopted without change.

(c) *Drug-Free Workplace.* The Drug-Free Work Workplace Act of 1988 (Pub. L. 100-690) which became effective on March 18, 1989 applies to NHOP. This Act requires applicants to make a certification as a condition to an award of a grant, that they will provide a drug-free workplace. Accordingly, §§ 280.207 Other Federal Requirements and 280.205 Application Requirements have been revised to refer to the certification.

3. *Selection process.* HUD proposed to use a three-step competitive process in the selection of recipients. The steps included threshold review, ranking, and final selection. Comments on this process are discussed below.

(a) *Threshold review (§ 280.215).* In the threshold stage, HUD would review all applications under stated criteria. The following threshold criteria were addressed by commenters:

—*Market demand.* One threshold criterion requires the applicant to demonstrate that there is a demand among eligible purchasers for homes in the area to be served, and that this demand is sufficient to ensure the sale of all homes under the proposed

program. A commenter thought that this requirement was excessive. Instead, the commenter suggested that HUD require applicants to demonstrate a need sufficient to justify a program of a certain size, and evidence to demonstrate that demand is sufficient to ensure that 25 percent of the homes will be sold immediately to eligible buyers.

The final rule clarifies that the recipient is not required to demonstrate that there is an existing demand that will ensure the immediate sale of each home. Rather, the applicant will be required to demonstrate that there is or will be sufficient demand among eligible purchasers for homes in the area to be served, and that this demand is sufficient to ensure the sale of all homes consistent with the program schedule submitted under § 208.205(b)(5).

—*Local consultation.* The applicant must demonstrate that it has consulted with, and has received the support of, residents of the neighborhood in which the program is located. At a minimum, the applicant must demonstrate that it provided a description of the program to the residents and requested their comments. The method used by the applicant to furnish the information must be designed to ensure that all residents receive actual or constructive notice of the program description and the request for comments. In response to a commenter, the final rule states that publication at least once a week for two consecutive weeks in a newspaper of general circulation serving the neighborhoods in which the program is located will constitute constructive notice.

—*Zoning.* The proposed rule required the applicant to demonstrate that the use of the proposed site is permissible under applicable zoning and other regulations, or that there is a reasonable basis to believe that proposed zoning actions will be completed successfully within four months of the submission of the application. A commenter observed that it will be extremely difficult to complete all zoning actions successfully within the proposed time period in some areas.

The zoning requirement is necessary to ensure that the applicant will make satisfactory progress toward the start of new construction or substantial rehabilitation following selection. The requirement should be easy to satisfy if the applicant has site control (§ 280.215(b)(7)(i)), has consulted with and received the support of residents of

the neighborhood in which the program is to be located (§ 280.215(b)(5)(i)), and has the approval of each unit of general local government in which the program is to be located (§ 280.215(b)(5)(ii)). In recognition that zoning actions may take additional time in some areas even with official support, the final rule has been revised to require applicants to show that all zoning actions will be completed within six months of the submission of the application.

—*Environmental impact.* The final rule states that HUD will assess the environmental effects of each proposal under the National Environmental Policy Act of 1969 (NEPA) and HUD's implementing regulations at 24 CFR Part 50. Any application that requires an Environmental Impact Statement (EIS) (generally those applications that HUD determines would have an unavoidable significant impact on the environment in accordance with the environmental assessment procedures at 24 CFR Part 50, Subpart E) will not be eligible for ranking. The final rule has moved the references to the Coastal Barriers Act to the section governing "Other Federal requirements" (§ 280.207) and has added clarifying language that significant impacts generally must be "unavoidable" to require an EIS.

One commenter argued that the exclusion of proposals requiring an environmental impact statement is unnecessarily restrictive. HUD notes that many factors warrant an active concern for the environmental quality of proposals. HUD believes that it is appropriate to reject proposals that will cause environmental impacts, or will be affected by existing adverse conditions that would remain as a detriment and hazard to neighborhood residents and purchasing families and that would not be resolved by proposed means of improvement.

Another commenter argued that NHOP is categorically exempt from environmental requirements because it involves the development of one- to four-family buildings. The categorical exemption for one- to four-family buildings is found at 24 CFR 50.20(a) and provides that NEPA does not apply to "an individual action on a one- to four-family dwelling or an individual action on a project of five- or more units developed on scattered sites * * * and there are not more than four units on any one site". Programs will generally range in size from 50 to 250 homes. While such programs will involve the development of one- to four-family

buildings, an application for such a program does not constitute "an individual action on a one-to-family dwelling". The categorical exemption is not applicable.

Various commenters addressed historic preservation requirements. The Advisory Council on Historic Preservation (ACHP) asked how HUD will fulfill its responsibilities under the National Historic Preservation Act of 1966 (16 U.S.C. 470-470w6) (NHPA). The final rule states that HUD will assess the environmental impacts of each proposal in accordance with NEPA and HUD's implementing regulations at 24 CFR Part 50. Part 50 covers NEPA and a number of other environmental authorities. These authorities, cited at 24 CFR 50.4, include NHPA, procedures for the Protection of Historic and Cultural Properties (36 CFR Part 800) and other historic preservation authorities.

ACHP was also concerned that the proposed rule would discourage creative use of historic properties. ACHP asserted that the provision disqualifying proposals that require the preparation of an EIS has been used in other HUD programs to deny applications involving the rehabilitation of historic properties. ACHP asserts that HUD has determined that such rehabilitation would constitute a "significant impact" on these buildings. The commenter suggested that HUD and ACHP negotiate an agreement addressing HUD's administration of NHOP with regard to historic properties.

The cited provision does not preclude or discourage the use of historic properties. Section 110(i) of NHPA (16 U.S.C. 470h-2(i)) makes it clear that nothing in NHPA shall be construed to require the preparation of an EIS where such a statement would not otherwise be required under NEPA. Thus, the exclusion of proposals that require the preparation of an EIS *does not*, by itself, preclude the use of historic properties. HUD will encourage the use of historic properties where feasible.

Another commenter urged HUD to exempt programs from all historic preservation requirements. The commenter argued that this change would relieve recipients of the responsibility of meeting extraordinary historical standards that increase program costs and cause delay.

Historic preservation requirements are imposed on actions that involve "undertakings". Programs assisted under NHOP will constitute undertakings when they result in changes in the character or use of historic properties or if any such historic properties are located in the area of potential effects. (See 36 CFR Part 800.) HUD cannot exempt NHOP from the

application of these requirements. As to delays caused by compliance, these are a function of the law and of the applicable historic preservation regulations. As to increased program costs, the use of historic properties does not always require full historic restoration, but usually involves meeting preservation standards that are technically sound and financially reasonable based on the property and the program resources available. Experience has demonstrated that the mitigation of adverse effects on historic property is almost always negotiated in the process. While treatment costs on historic properties may be higher than the cost of rehabilitating non-historic property, they are usually reasonable. Only rarely is the use of historic property foreclosed on an economic basis.

Finally, one commenter argued that HUD should exempt programs from all local environmental procedures. HUD does not believe that it is appropriate to preempt State and local laws with regard to environmental matters by this regulation.

(b) *Ranking.* In the second stage, HUD evaluates those applications successfully completing threshold review and places these applications in a rank order based on six criteria set forth in section 607 of the Act.

One commenter complained that the regulation does not describe how the ranking criteria are to be weighted and scored. The commenter argued that such information is necessary to enable potential recipients to develop applications that are responsive to HUD's concerns and NHOP goals. HUD will periodically publish a notice announcing the availability of funds for NHOP. The notice will specify the maximum number of points that may be awarded under each of the ranking criteria and provide other appropriate program information and guidance (see § 280.200). To ensure that each statutorily-imposed ranking criterion will receive adequate consideration, the final rule provides that the maximum number of points that may be awarded under each ranking criterion will be not less than 10 percent of the maximum number of points that may be awarded under all of the ranking criteria.

Under proposed § 280.220(b)(2), HUD considered the extent to which non-Federal public or private financial and other contributions to the program will reduce the cost to families purchasing homes constructed or substantially rehabilitated under the program. Upon reconsideration, the final rule has been revised to provide that programs that receive such contributions under a

State-designated enterprise zone program will receive additional points under this criterion. (A State-designated enterprise zone means an area that is designated in accordance with a State law, State executive order, or State plan that recognizes distressed areas and encourages or offers incentives for private investment that will create jobs and assist in the economic revitalization of the area.) This revision will give State-designated enterprise zones the recognition and support that they deserve. Enterprise zones encourage entrepreneurship and job creation in distressed inner city and rural areas, a major goal of any economic development effort such as NHOP. The number of additional points that will be awarded to programs meeting these State-designated enterprise zone requirements will also be announced in the NHOP NOFA.

The commenters addressed the following ranking criteria:

- Contributions of land.* HUD is required to consider the extent to which non-Federal public or private entities will contribute land necessary to make the program feasible. Land necessary to the feasibility of the program would include individual lots for homes constructed or substantially rehabilitated under the program. In response to one commenter's request, this requirement has been clarified to permit the consideration of land contributed for use in the program prior to the submission of the application.
- Cost effectiveness.* HUD is required to consider the degree to which the program will produce the maximum number of homes for the least amount of NHOP assistance, taking into consideration cost differences among different market areas. Cost adjustments are made by the application of a commercial construction cost index selected by HUD and announced in the NOFA. A commenter emphasized that the selected index must reflect the costs of construction in such high cost cities as New York. HUD intends to use the appropriate quarterly local cost multipliers listed in the Residential Cost Handbook published by Marshall and Swift Publication Company to adjust between market areas. HUD believes that these multipliers will provide appropriate adjustments.
- Neighborhood blight.* One commenter suggested that HUD consider the degree to which the median income of the neighborhood in which the program is located is lower than

median incomes of the neighborhoods involved in competing applications. This information is considered when HUD determines the extent to which each program is located in a neighborhood of severe physical and economic blight (§ 280.220(b)(4)(i)).

E. Program Operation

1. **Eligible purchasers.** The statute provides that families purchasing a home must have a family income on the date of purchase that does not exceed the higher of "the median income for a family of 4 persons in the metropolitan statistical area involved" (subject to a limited exception, discussed below) or "the national median income for a family of 4 persons." The preamble to the proposed rule observed that this statutory language was troublesome because data on median income for a family of four are not available. HUD noted that the decennial Census provides only median income data and does not provide median income data based on family size. HUD is required to develop lower income limits that are based on 80 percent of the median family income for an area of programs under the United States Housing Act of 1937. These median income limits are then adjusted for smaller and larger families. Currently for most areas, the lower income limit for a family of four under the programs is set at 80 percent of the median family income. (I.e., under these programs, the median family income adjusted for a family of four is assumed to be equal to median family income.) In light of the lack of data for median income for a family of four, the proposed rule made a similar assumption and used median family income as the eligibility standard.

One commenter observed that Census data on national median family income by family size are available in *Detailed Population Characteristic, PC 80-1-01A* (Table 299), and that annual updates to median family income by family size is available in *Current Population Survey, P-60 Series, Money Income and Poverty Status in the United States* (Table 1). The commenter urged HUD to revise the proposed rule to reflect the availability of this data.

HUD's statement that data on the national median income for a family of four persons is not available was incorrect. Nonetheless, HUD believes that the data cited by the commenter have numerous disadvantages that makes their use for NHOP infeasible. These disadvantages include:

—The data are not current. As of March 1989 the most recent P-60 estimates measure median income for mid-1987. By contrast, the median family income

estimates developed for the Section 8 program by HUD have been calculated forward to the start of the second quarter of calendar year 1989. This represents a 20-month difference between the availability of the cited data estimates and the mid-point of the projected HUD median family income estimates.

—The data only reflect median income estimates for a family of four for the nation and for Census regions. Median family income for a family of four for subregional areas is not available. While formulae can be developed to compute this figure for MSAs, such a breakdown would conceal large variations in median income among the MSAs. For example, the P-60 data may show no income increase for a Census region. This data, however, would not reveal a median income increase in one MSA that was counterbalanced by an income decrease in another MSA. While HUD could use the P-60 data for national income limit and the Section 8 income data for the local limit, such estimates are statistically inconsistent since they would be based on different data bases.

—It is highly likely that Congress intended the HUD median family income estimate developed under the Section 8 program to be used. This median income estimate is commonly used by HUD and many other Federal agencies (e.g., the Department of the Treasury and Farmer's Home Administration) in the administration of various programs. Moreover, there is a common misconception that the four-person income limit under the Section 8 program is derived from a four-person median income estimate. It is not. HUD does not prepare any estimates of the median family income for various family sizes. Rather, the four-person income limit is derived from the median income estimate for all families.

The commenter also noted that the 1987 *Current Population Survey* uses 3.17 persons as the median family size and, thus, the median family income in a particular MSA is more comparable to the median family income of a family of 3 persons in the MSA rather than 4. The commenter argued that HUD's determination of MSA median family income for a family of four should reflect this data. The commenter's information on family size is accurate. However as noted above, there simply is no available data source that provides a factor to make this correction. Moreover, the limited information available seems to indicate that there is

no direct correlation between family size and income. E.g., in some areas, the median family income for families of four will exceed the median income for families of three and in other areas the opposite is true.

Based on the above, HUD will use the most recent median family income data developed by HUD for the Section 8 program.

The final rule has been clarified in response to commenters who believed that HUD intended to rely on 1980 Census data without an annual update. As revised, the final rule states that for the purpose of determining the median family income for the nation and metropolitan statistical areas, the recipient must use the most recent median family incomes developed by HUD under Section 8 of the United States Housing Act of 1937.

2. **Sales contract.** Under proposed § 280.320, the recipient and each family purchasing a home under NHOP are required to execute a sales contract containing appropriate terms and conditions covering the purchase of the home, the downpayment requirements and repayment provisions described below, and such other terms and conditions as HUD may require. A commenter suggested that the provision requiring sales contracts to contain such other terms and conditions should be revised. The commenter would make the loan subject to such other terms and conditions as are established by HUD before the deadline for NHOP applications. The commenter noted that if additional terms and conditions are imposed, recipients would be unfairly required to revise plans for implementing programs. The same comment was raised regarding similar requirements governing the loan agreement under § 280.322(a)(7).

The final rule retains the contested provisions. The additional terms and conditions that will be required in the agreements will be limited to those necessary to complete the sale or loan (e.g., provisions governing settlement procedures) and will be specifically tailored to cover the applicable State and local laws. HUD will not require terms and conditions in the sales contract or in the loan agreement that will be contrary to the requirements of the statute or these regulations. The additional terms and conditions should not have a substantial impact on the recipient and the terms and conditions should not require recipients to revise their plans for implementing programs.

3. **Downpayment requirement.**—(a) **Amount.** Proposed § 280.320(b) required each family purchasing a home to make

a downpayment of 10 percent of the sales price of the home. A higher downpayment may be required if the recipient determines that such a downpayment is appropriate (§ 280.320(b)(1)(i)). A lower downpayment may be required under the circumstances described below (§ 280.320(b)(1)(ii)).

HUD recognizes that most eligible purchasers have few resources for downpayments and have a limited ability to amass significant sums quickly. The amount of the downpayment, however, is set by the terms of the statute. To the extent consistent with the statute, HUD has tried to lessen the financial impact of this 10 percent requirement. For example, the final rule has been clarified to state that all of the purchaser's cash contributions (e.g., closing costs) are included in the computation of the purchaser's 10 percent downpayment.

Section 280.320(b)(1) states that the recipient may require a downpayment of less than 10 percent, if the first mortgage on the home is to be held by a State or a unit of general local government under a home loan program provided by the State or unit of general local government, and the program provides for a lower downpayment. One commenter requested that HUD specifically provide that mortgage revenue bond programs qualify for exception under this provision.

Mortgages issued in connection with a mortgage revenue bond program, in most instances, will qualify for exception under this provision because the State or unit of general local government will hold the first mortgage. In some programs, however, the State or unit of general local government will enter into agreements with mortgage lenders where the lender issues the first mortgage. The proceeds of the mortgage revenue bonds are used to purchase these mortgages on the secondary market. In such cases, the holder of the first mortgage is the commercial lender, not the State or unit of general local government. Such programs would not qualify for the exception. The proposed clarification has not been made.

(b) *Source of downpayment.* The proposed rule provides that the family must provide a downpayment and that government entities and instrumentalities are prohibited from providing the funds for the downpayment. A commenter opposed this prohibition. The commenter noted that the prohibition is not required by statute and alleged that the proposed rule would prohibit the use of many

State and local government downpayment assistance programs.

Congress recognized that downpayment requirements provide a valuable incentive to save for families wishing to purchase a home, and ensure that purchasers have some equity, and thus a greater stake in the home's upkeep. (See H. Rep. No. 100-122, 100th Cong. 1st Sess. 97 (1987).) Accordingly, section 605(c) of the Act required that the family purchasing a home under NHOP must make the required downpayment. To ensure that families will have a financial stake in the home, the final rule continues to forbid government entities and other instrumentalities from providing the funds for the family's downpayment. Moreover, the imposition of this prohibition is supported by section 605(c)(1)(B). This section recognizes only one exception to the requirement that the family must provide at least a 10 percent downpayment. This exception is specifically limited to situations where the first mortgage on the home is to be held by a State or unit of general local government under a home loan program provided by the State or unit of general local government and the program provides for lower downpayment.

Another commenter argued that the proposed rule should permit States and local governments to provide funds (by local or other forms of assistance) to eligible purchasers if the funds are not used for the downpayment. For example, State and local governments may provide additional assistance in the form of a reduction of the total purchase price of the home or the payment of settlement costs. Financial and other contributions (contributions that result in the program cost reductions that are reflected in the sales price of homes or that result in the reduction of carrying charges to families purchasing homes under the program) are permitted under the program and are discussed at § 280.220(b)(2). This section expressly provides that financial and other contributions to the program that will reduce the cost of families purchasing homes under NHOP will be considered as a ranking factor. HUD does not believe that further specificity is required.

(c) *Date of downpayment.* Comments noted that standard real estate practice does not require borrowers to provide a 10 percent downpayment at the time of the execution of the sales contract. Rather, earnest money deposits are made in conjunction with the execution of a sales contract. A commenter argued that it would be highly irresponsible for HUD to require the full downpayment

when the sales contract is executed, particularly where homes may not be under construction when the sales contract is executed.

The statute does not specify a date by which the family must provide a downpayment. HUD anticipates that recipients may wish to require payment of the downpayment at different times, or may wish to permit families to accumulate their downpayments over a period of time before settlement. To provide the recipient with the greatest amount of discretion with regard to the date of the required downpayment, proposed § 280.320(b)(2) provided that the family must make the downpayment on the date required by the recipient. This provision is retained in the final rule. This requirement is subject to the minimum participation provision which states that construction or substantial rehabilitation of non-display homes may not begin until 25 percent of the homes under the program have been contracted for sale and the required downpayments are made.

One commenter suggested that HUD permit lease-purchase arrangements. Such lease-purchases would require the commitment of a small sum (1 to 2 percent of the purchase price) and would have a built-in savings program (monthly commitment of funds to a downpayment escrow concurrent with rent payment). HUD does not believe that lease-purchase agreements are contemplated by the statute. The statute generally refers to contracts for sale, and contains prohibitions against leasing (e.g., section 605(d) states that no family purchasing a home under NHOP may lease the home.) Moreover, the purpose of NHOP is to encourage homeownership by families and to rebuild the depressed areas of the cities. HUD believes that the lease-purchase contracts envisioned by the commenter would substantially reduce the stake that the family would have in the home and the commitment of the purchasers to the upkeep of the home, and would tend to turn NHOP homes into rental properties contrary to the goals of the legislation.

(d) *Interest on downpayment.* Under proposed § 280.320(b)(3), the recipient is required to deposit all downpayments in an account with a federally-insured bank or savings and loan institution. In response to a commenter's suggestion, the final rule includes federally insured credit unions as eligible depositories.

The recipient is required to pay interest on the downpayment to the family from the date that the downpayment is made through the date of settlement at the actual rate of

interest earned on the account. Under the proposed rule, the interest rate paid to the family may not be lower than the lowest rate of interest paid on time savings deposits with a federally insured bank or savings and loan institution conducting business within the MSA in which the program is located. (The final rule has been changed to refer to the lowest rate of interest paid by such institutions within the State).

A commenter urged HUD to provide a definition of time savings deposit. The commenter noted that deposits into time certificates could limit the availability of funds when needed for closing. Consistent with the statutory language, the final rule has been revised to provide that the interest rate shall not be lower than the "passbook rate".

4. Loan requirements. Section 280.322(a) contains the HUD-imposed requirements for each NHOP loan. A commenter argued that the rule must include the formula that HUD will use to compute the amount of the loan. This commenter believed that the amount of the loan would be based upon family size and family income. Under § 280.322(a)(2), the amount of the NHOP loan is limited to \$15,000. HUD has not imposed any further regulatory limitations on the loan amount. HUD notes, however, that recipients may place their own restrictions on the size of NHOP loan. Indeed, HUD's ranking of eligible applicants will be based, in part, upon the degree to which each program will produce the maximum number of homes for the least amount of assistance under NHOP, taking into consideration cost differences among the market areas.

5. HUD payments to recipient. Proposed § 280.322(b) stated that HUD will provide the recipient with an amount equal to the amount of the loan within 30 days after the date of purchase of a home with a loan under this part. The date of purchase was defined as the date that a family executes a sales contract for the purchase of a home under NHOP.

A commenter noted that the traditional definition of the purchase date is the date of settlement. This commenter asked whether this provision would permit HUD to provide funding before the actual closing of the home based on the execution of a sales contract. If so, the commenter asked whether HUD funds could be used to support actual construction. NHOP funds will be available to the recipient within 30 days of the date that the family executes a sales contract for the purchase of a home. The use of these funds, however, is limited to the

provision of a loan to the purchasing family. The funding may not be used for other purposes and may not be used to support actual construction or substantial rehabilitation.

Another commenter noted that funds must be available before a loan can be closed. The commenter argued that this rule must clearly state that HUD will make an amount equal to the loan available for the closing and that in every case the money should be made available no later than 30 days after the closing. As noted above, reimbursement will be made within 30 days of the date that the contract of sale is executed. This should be sufficient to ensure that the recipient will have access to funds before closing.

One commenter addressed HUD's method of reimbursement to recipients. The commenter recommended that HUD provide for payment by letter of credit. Under such a system, HUD would commit the entire amount of the NHOP grant to an approved recipient through a letter of credit upon initiation of presales. The commenter argued that this revision would simplify the process of drawing down funds and expedite completion of settlements.

HUD intends to reimburse recipients under NHOP through direct deposit. Payments will be made following the presentation of a request for advance or reimbursement. Payments will be made through the Department of the Treasury's Automated Clearing House which will automatically deposit approved funds into the recipient's bank account. HUD does not believe that the letter of credit method proposed by the commenter is a preferable method of payment since both methods require recipients to provide an accounting for each home sale and because payments under either system would be equally expeditious. (Generally reimbursement will occur within 48 hours of the recipient's submission of information regarding the purchase.)

6. Repayment of loan. As required by sections 604(b)(4) and 606(e)(5) of the Act, proposed § 280.330(a) provided that the family must repay the NHOP loan to HUD if the family sells, leases, or transfers any interest in the property. The Senate Committee Report stated that the refinancing of the first mortgage would not require repayment, unless there is a related sale, lease or other transfer of the property. See S. Rep. No. 100-121, 100 Cong., 1st Sess. 23 (1987). Based on this report, the proposed rule stated that refinancing that is unrelated to a sale, equity withdrawal, lease, or transfer of interest in the property would not require repayment. Refinancing involving an equity withdrawal would

require repayment of the loan to HUD to the extent of the withdrawal.

Section 606(e)(5) of the Act provides that the Secretary may approve a transfer of the home without repayment. Based upon the House Committee Report which indicated that the Committee anticipated that the Secretary would issue such approval only if the proceeds of the sale are insufficient to repay the second mortgage in full (H.R. Rep. No. 100-122, 100 Cong., 1st Sess. 96 (1987)), the proposed rule stated that approval would be granted only if HUD determined that an undue hardship would result from the application of the repayment requirement, and that HUD will make this finding only if the proceeds of the transaction are insufficient to repay the loan amount in full. This provision further provided that approval would be granted only to the extent that the proceeds of the sale are insufficient to repay the loan in full and that HUD will not approve a lease without repayment.

Several commenters objected that the proposed rule was too restrictive. (E.g., one commenter noted that the congressional intent with regard to the forgiveness of the repayment obligation was not memorialized in the statutory language and that broader provisions for transfer and HUD approval of transfers may be included in the final rule.) Commenters proposed revisions that would permit transfers without repayment or would permit HUD to approve transfers without repayment under various circumstances. For example, commenters would permit:

- Equity withdrawal without repayment if the property value is sufficient to cover the first and second mortgages;
- Sale without repayment where an income-eligible first-time homebuyer purchases the home;
- Transfer without repayment where the resale price of the homes in the area are "restricted";
- Transfer without repayment where the family has held the property for a set number of years (or has transferred the home to another income eligible family for this set number of years);
- The establishment of a formula that would allow the family, if the home is well maintained, to receive a portion of whatever is realized in a sale over and above the first mortgage. Purportedly, this would ensure that each family would receive some monetary return for their commitment to a high-risk neighborhood and the maintenance of their house.

The proposed changes would permit the family purchasing a home to reap a benefit under NHOP that was not intended by Congress. One of the main purposes of NHOP is to encourage homeownership by families in the United States who are otherwise not able to afford homeownership. Many of the proposed changes would benefit first-time *sellers* rather than first-time *purchasers*. For example, permitting transfers without repayment to income-eligible first-time buyers would not assist that second buyer in the purchase of the home. Rather, the benefits from such a transfer would inure entirely to the seller since the purchase price of the home would, if economic forces of the market prevail, include an incremental payment for the non-interest bearing loan.

Congress did not choose to attach the beneficial loan provisions of NHOP to specific properties in perpetuity. Rather, it permitted the family purchasing the home to receive the benefits of the interest-free second mortgage only during the time that the family owns the property. Upon the sale, lease or transfer, NHOP requires repayment into a revolving fund that will be used to develop further NHOP properties. In light of this statutory framework, the proposed changes discussed above have not been made.

Upon consideration, HUD believes that the provisions permitting HUD to approve a sale or other transfer on a case-by-case basis may be too restrictive. While the Senate report anticipated that HUD would grant approval only where the funds were insufficient to repay the second mortgage in full, the report did not limit HUD's approval to such situations. HUD believes that there may be circumstances where such approval should be granted. For example, if there is an equity withdrawal related to a refinancing of a home, the current rule would require a family to repay the second mortgage up to the extent of the equity withdrawal. Repayment would be required even if the family intended to use the equity withdrawal to maintain or preserve the mortgaged premises (roof repair, replacement of major appliances, etc.). The final rule provides HUD with greater discretion in the approval of such transfers.

7. Funding amendments and deobligation of funds. Proposed § 260.335(b)(1)(ii) stated that HUD may deobligate amounts if the recipient fails

to carry out activities under the program within a reasonable time after selection. One commenter asked what will constitute a reasonable time and suggested that a minimum of two years should be allotted to the grant recipient to carry out the program.

The amount of time that will be reasonable for the completion of various NHOP activities will vary from program to program and may be affected by such factors as: the recipient's planned production schedule, the size of the program, consumer acceptance of the homes, seasonal limitations on construction and rehabilitation activities, unforeseeable contingencies (such as litigation), etc. Accordingly, HUD will review each program on a case-by-case basis. HUD will base its determination of reasonableness on the recipient's program schedule (see § 260.205(b)(5)) and on the circumstances affecting each program.

IV. Other Matters

A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations at 24 CFR Part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969. The Finding of No Significant Impact is available for public inspection between 7:30 a.m. and 5:30 p.m. weekdays in the Office of the Rules Docket Clerk, Office of the General Counsel, Department of Housing and Urban Development, Room 10276, 451 Seventh Street, S.W., Washington, DC 20410.

This rule does not constitute a "major rule" as that term is defined in section 1(d) of the Executive Order on Federal Regulations issued by the President on February 17, 1981. An analysis of the rule indicates that it does not (1) have an annual effect on the economy of \$100 million or more; (2) cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (3) have a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability to United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

In accordance with 5 U.S.C. 605(b) (the Regulatory Flexibility Act), the undersigned hereby certifies that this rule does not have a significant

economic impact on a substantial number of small entities. Since the number of recipients that will be funded under the program will be small and will include both small and large recipients, HUD does not believe that a significant number of small entities will be affected by this program.

The General Counsel, as the Designated Official under Executive Order No. 12606—The Family, has determined that the rule will not have a significant impact on family formation, maintenance, or well-being. The program is a benefit to families because it encourages homeownership in the United States by eligible families who are not otherwise able to afford homeownership.

The General Counsel, as the Designated Official under section 6(a) of Executive Order No. 12611—Federalism, has determined that the final rule does not involve the preemption of State law by Federal statute or regulation and does not have federalism implications. Rather, the rule requires approval by State and local governments of proposed programs and defers to State and local policies in many areas including: local building codes; the amount of the required downpayment where the first mortgage is held by local governments under a home loan program conducted by the State or local government; and local government approval of the program schedule. In addition, the rule does not penalize applications under the ranking criteria for financial and other contributions to the extent that State and local governments are prohibited from making such contributions.

This rule was listed as Item No. 959 in the Department's Semiannual Agenda of Regulations published on April 24, 1989 (54 FR 16708, 16729) under Executive Order 12291 and the Regulatory Flexibility Act.

The Catalog of Federal Domestic Assistance Number is 14.179.

The collection of information requirements contained in this rule have been submitted to the Office of Management and Budget for review under section 3504(h) of the Paperwork Reduction Act of 1980. The sections of the proposed rule identified in the matrix below have been determined by the Department to contain collection of information requirements. Information on these requirements is provided as follows:

Information collection requirement	Section of CFR affected	Number of respondents	Number of responses per respondent	Total annual response	Hours per response	Total hours
Application submission requirements.....	§ 280.105 (b) and (c); § 280.110 (a) and (b); § 280.205; § 208.215 (b)(2)(i), (b)(2)(iv), (b)(5) and (b)(7); and § 280.207(a)(6).....	150	1	150	8.00.....	1,200.0
Affirmative fair housing marketing requirements.....	§ 280.207(a)(6).....	10	1	10	3 minutes.....	.5
Racial and ethnic data collection requirement.....	§ 280.207(a)(7).....	10	145	1,450	3 minutes.....	43.5
Lead-based paint reporting and recordkeeping requirement.....	§ 280.207(d).....	2	145	290	.50.....	145.0
Grant agreement.....	§ 280.303(a).....	10	1	10	2.00.....	20.0
Request for modification of requirement for eligible buyers.....	§ 280.315(a).....	5	1	5	1.50.....	7.5
Sales contract requirement.....	§ 280.320(b).....	10	145	1,450	.50.....	725.0
Request for reimbursement.....	§ 280.322(b).....	10	145	1,450	.50.....	725.0
Loan and second mortgage requirement.....	§ 280.322(a).....	10	145	1,450	.50.....	725.0
Request for HUD approval of sale or transfer.....	§ 280.330(b).....	10	45	450	1.50.....	675.0
Total burden hours.....						4,266.5

List of Subjects in 24 CFR Part 280

Grant program; housing and community development, Loan program; housing and community development, Low- and moderate-income housing.

For the reasons set forth in the preamble, Title 24 of the Code of Federal Regulations is amended to add a new Subchapter E to Chapter II to read as follows:

PART 280—[AMENDED]

SUBCHAPTER E—GRANT PROGRAMS

PART 280—NEHEMIAH HOUSING OPPORTUNITY GRANTS PROGRAM

Subpart A—General

- Sec.
280.1 Applicability and scope.
280.5 Definitions.
280.10 Waiver.

Subpart B—Assistance Provided

- 280.100 NHOP Assistance.
280.103 Assistance under other HUD programs.

Subpart C—Program Eligibility Requirements

- 280.105 Program size.
280.110 Program location.
280.115 Home quality.

Subpart D—Application and Selection Procedures

- 280.200 Notice of fund availability.
280.205 Application requirements.
280.207 Other Federal requirements.
280.210 Selection process.
280.215 Threshold requirements.
280.220 Ranking criteria.
280.225 Final selection.

Subpart E—Program Operation

- 280.300 Obligation of funds.
280.303 Grant agreement.
280.305 Minimum participation.
280.315 Eligible purchasers.
280.320 Sales contract and downpayment requirements.
280.322 Loan requirements.

- 280.330 Repayment of loan.
280.335 Funding amendments and deobligation of funds.

Authority: Sec. 611, Housing and Community Development Act of 1987 (Pub. L. 100-242, approved February 5, 1988); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

Subpart A—General

§ 280.1 Applicability and scope.

(a) *General.* This part establishes the Nehemiah Housing Opportunity Grants Program (NHOP) contained in Title VI of the Housing and Community Development Act of 1987 (Pub. L. 100-242, approved February 5, 1988). Under this Program, HUD is making grants to nonprofit organizations to be used to provide loans to families purchasing homes constructed or substantially rehabilitated in accordance with an approved program under this part.

(b) *Purpose.* The purposes of NHOP are:

- (1) To encourage homeownership by families who are not otherwise able to afford homeownership;
- (2) To undertake a concentrated effort to rebuild the depressed areas of cities and to create sound and attractive neighborhoods; and
- (3) To increase the employment of residents of these neighborhoods.

§ 280.5 Definitions.

As used in this part:

Applicant means a nonprofit organization that submits an application for assistance under this part. The term applicant includes two or more nonprofit organizations submitting a joint application.

Assistance means grants to recipients for the purpose of providing loans to families purchasing homes constructed

or substantially rehabilitated in accordance with an approved program.

Contiguous parcels of land mean parcels of land that:

- (a) *Abut;*
- (b) Are divided only by natural or man-made boundaries (such as streets, rights-of-way, or similar divisions); or
- (c) Are closely located. For the purposes of paragraph (c) of this definition, parcels will be considered to be closely located if:

(i) The majority of homes to be constructed or substantially rehabilitated in the neighborhood are located on parcels that:

- (A) *Abut;*
- (B) Are divided by natural or man-made boundaries (such as streets, rights-of-way, or similar divisions); or
- (C) Are divided by a small number of lots that do not, in the Secretary's determination, detract from the objective of fostering a concentrated effort to rebuild depressed areas and to create sound and attractive neighborhoods; and

(ii) The remaining homes to be constructed or substantially rehabilitated in the neighborhood are located on parcels in one or more areas, in which the parcels for each such area:

(A) Meet the requirements of clause (A), (B) or (C) of paragraph (c)(i) of this definition, and

(B) Are separated from the parcel referred to in paragraph (c)(i) of this definition by a distance, at the closest point, of no more than two city blocks (exclusive of any natural or man-made boundary).

Date of purchase means the date that a family executes a sales contract for the purchase of a home under this part.

Financial and other contributions to the program means financial or other contributions that result in program cost reductions that will be reflected in the sales price of the homes purchased under the program, or that result in the reduction of carrying charges to families purchasing homes under the program. Such contributions include (but are not limited to) cash contributions to the program; the waiver or modification of construction, development, or zoning requirements by units of general local government; the provision of no-interest or below-market interest construction loans; "in kind" donations of land, structures, equipment, materials or supplies; home loan programs that provide below-market interest rates, or principal or interest payment reductions to families purchasing homes under the program; and property tax abatement offered by a State or a unit of general local government to families purchasing homes under the program. Such contributions do not include: the time or services contributed by volunteers, or contributions provided with funds obtained through a federally assisted program, except for contributions made available under the Community Development Block Grant Program under Title I of the Housing and Community Development Act of 1974 (42 U.S.C. 5301, *et seq.*).

Home means a one- to four-family dwelling. The term includes dwelling units in a condominium project that consists of not more than four dwelling units, dwelling units in a cooperative project that consists of not more than four dwelling units, townhouses, and manufactured homes.

HUD means the United States Department of Housing and Urban Development.

Metropolitan statistical area means a metropolitan statistical area or a primary metropolitan statistical area established by the Office of Management and Budget.

Neighborhood means an area that is distinguishable from other areas on the basis of one or more significant features such as:

- (a) Natural or man-made boundaries;
- (b) A locally recognized name, formal or informal;
- (c) An identity as a residential subdivision;
- (d) An identity as an elementary school district; or
- (e) Distinctive population, social, or housing characteristics.

Nonprofit organization means a private nonprofit corporation or other private nonprofit legal entity. No part of the net earnings of the organization may inure to the benefit of any member,

founder, contributor, or individual. The organization (a) may not be controlled by, or be under the direction of, persons or firms seeking to derive profit or gain from the organization; (b) must have a voluntary board; and (c) must have a tax exemption ruling from the Internal Revenue Service under section 501(c) of the Internal Revenue Code of 1986. Nonprofit organization does not include a public body or the instrumentality of any public body.

Program means the undertaking by a recipient with HUD assistance under this part for the construction or substantial rehabilitation of homes in accordance with the requirements of this part.

Recipient means an applicant that HUD approves as to financial responsibility and that executes a grant agreement with HUD to carry out a program under this part.

Rehabilitation means labor, materials, tools and other costs of improving buildings, including repair directed toward an accumulation of deferred maintenance; replacement of principal fixtures and components of existing buildings; installation of security devices; and improvement through alterations or incidental additions to, or enhancement of, existing buildings, including improvements to increase the efficient use of energy in buildings.

State means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, and any other territory or possession of the United States.

Substantial rehabilitation means: (a) Rehabilitation involving costs in excess of 60 percent of the maximum sales price of a home assisted under this part after rehabilitation; or (b) the rehabilitation of a vacant, uninhabitable structure.

Unit of general local government means a borough, city, county, parish, town, township, village, or other general purpose political subdivision of a State.

§ 280.10 Waiver.

The Secretary of HUD may waive any requirement of this part that is not required by law, if the Secretary determines that good cause for waiver exists. Each waiver must be in writing and must be supported by documentation of the pertinent facts or grounds.

Subpart B—Assistance Provided

§ 280.100 NHOP assistance.

(a) *General.* HUD will provide assistance to recipients in accordance with the requirements of this part. Recipients may only use assistance under this part to provide loans to families purchasing homes constructed or substantially rehabilitated in accordance with an approved program.

(b) *Amount.* The amount of assistance provided to any recipient under this part may not exceed \$15,000 for each home purchased by an eligible family under an approved program.

§ 280.103 Assistance under other HUD programs.

Except for assistance made available under the Community Development Block Grant program under title I of the Housing and Community Development Act of 1974 (42 U.S.C. 5301 *et seq.*), a recipient's program is not eligible for assistance under other HUD assistance programs. Dwellings purchased under the program are eligible for mortgage insurance under section 203(b) (one- to four-family home mortgages), section 203(k) (rehabilitation of one- to four-family homes), section 221(d)(2) (low- and moderate-income families), section 234(c) (condominium mortgages), section 245(a) (graduated payment mortgages), and section 251 (adjustable rate mortgages) of the National Housing Act.

Subpart C—Program Eligibility Requirements

§ 280.105 Program size.

(a) *Number of homes.* The minimum number of homes that must be constructed or substantially rehabilitated under a program will depend on the number of existing dwelling units that are located in the unit of general local government in which the program is to be carried out. If the program is to be carried out within the jurisdiction of more than one unit of general local government, the number of existing dwelling units will be those located in the unit of general local government that provides the greater, or if appropriate the greatest, amount of financial and other contributions to the program. For the purposes of programs under this part, the minimum number of homes is: (1) 250, if there are more than 100,000 existing dwelling units in the relevant unit of general local government; (2) .25 percent of the number of existing dwelling units in the relevant unit of general local government, if the number of existing dwelling units in the unit of general local government is between 20,000 and

100,000; or (3) 50, if there are less than 20,000 existing dwelling units in the relevant unit of general local government.

(b) *Exception.* HUD may waive the program size requirement in paragraph (a) of this section, if the chief elected official of the unit of general local government that provides the greatest amount of financial and other contributions to the program, or the Governor of the State in which the program is to be located, requests a waiver and certifies, with supporting documentation, that the program size requirement will prevent the State or the unit of general local government from using the program effectively. HUD will determine that the program size requirement would prevent the effective use of the program if:

(1)(i) The projected market demand for the homes is insufficient to support a program of the size required;

(ii) Structures cannot be made available for rehabilitation and a sufficient amount of land cannot be made available for new construction, at a reasonable cost, to support a program of the size required;

(iii) The financial and other contributions available to the program are insufficient to support a program of the size required; or

(vi) The amount of mortgage financing available is insufficient to support a program of the size required;

(2) The construction or substantial rehabilitation of a program of the proposed size will result in cost reductions through economies of scale, comparable to the cost reductions achieved by other programs eligible for assistance under this part. (Such cost reductions include (but are not limited to) economies of scale in construction, in compliance with State and local laws and regulations, and in legal, architectural, engineering and sales costs); and

(3) The program, by itself or together with improvement efforts that are or will be undertaken in the neighborhood by units of general local government or private entities, will result in a substantial improvement in the overall quality and long-term viability of the neighborhood. Other improvement efforts may include that construction or rehabilitation of other structures (including commercial properties and subdivisions), improvements to public facilities or services, or the expansion of private enterprise in the neighborhood.

(c) *Number of dwelling units.* For the purposes of this section, the number of existing dwelling units in the unit of general local government means the number of housing units in the unit of

general local government, as reported in the most recent decennial Census. HUD will use the Census number unless the applicant submits a revised estimate and supporting documentation demonstrating that the number of housing units has changed significantly since the most recent decennial Census.

§ 280.110 Program location.

(a) *Census tract or neighborhood income limitations.* All homes constructed or substantially rehabilitated under a program must be located in Census tracts, or in neighborhoods (within Census tracts), in which the median family income does not exceed 80 percent of the median family income of the area in which the program is to be located. Median family income will be determined as follows:

(1) For the purpose of determining the median family income of the area in which the program is to be located, HUD will use the median family incomes derived from the most recent decennial Census and the areas established for Section 8 of the United States Housing Act of 1937.

(2) For the purpose of determining the median family income for Census tracts, HUD will use the tract definitions and median family income data reported in the most recent decennial Census, unless the applicant demonstrates that the Census data does not reflect the current median family income of the tract. The applicant must submit appropriate supporting documentation, including a revised estimate of median family income for the tract; an explanation of the methods used to compute the revised estimate; and a description of the social and economic changes causing the median family income change.

(3) If the homes are located in a Census tract that does not meet the median family income requirements, the applicant may demonstrate that the homes will be located in a neighborhood (within a Census tract) that meets these median family income limitations. The applicant must submit appropriate supporting documentation, including an estimate of the median family income for the neighborhood; an explanation of the methods used to compute the estimate; and a description of the social and economic factors that cause the median family income for the neighborhood to be less than the median family income of the Census tract. In computing neighborhood median family income, applicants should rely, to the extent practicable, on block group data reported in the most recent decennial Census.

(b) *Neighborhood requirements.* (1) Except as provided under paragraph (b)(2) of this section, all homes constructed or substantially rehabilitated under a program must be located in one neighborhood and must be located on contiguous parcels of land.

(2) Homes constructed or substantially rehabilitated under a program may be located in up to four neighborhoods, if the following requirements are met:

(i) All homes to be constructed or substantially rehabilitated within each neighborhood are located on contiguous parcels of land;

(ii) Each unit of general local government in which the program is to be located certifies that land cannot be made available, at a reasonable cost, in a single neighborhood for a program of the size required under § 280.105.

(iii) The applicant submits evidence demonstrating that construction or substantial rehabilitation in the neighborhoods will result in cost reductions through economies of scale, comparable to the cost reductions achieved by other programs eligible for assistance under this part. (Such cost reductions include (but are not limited to) economies of scale in construction, in compliance with State and local laws and regulations, and in legal, architectural, engineering and sales costs).

(iv) The applicant submits evidence demonstrating that the program, by itself or together with improvement efforts that are or will be undertaken in the neighborhoods by units of general local government or private entities, will result in a substantial improvement in the overall quality and long-term viability of the neighborhoods. Other improvement efforts may include the construction or rehabilitation of other structures (including commercial properties and subdivisions), improvements to public facilities or services, or the expansion of private enterprise in the neighborhoods.

§ 280.115 Home quality.

(a) *Generally.* Except for manufactured homes, homes constructed or substantially rehabilitated under a program must comply with applicable local building code standards. (If no local building code standards are applicable, the homes must comply with a nationally recognized model building code (such as the CABO One- and Two-Family Dwelling Code) mutually agreed upon by the recipient and HUD). All such homes must also comply with the energy

performance requirements contained in the minimum property standards under 24 CFR Part 200 Subpart S.

(b) *Manufactured homes.* Manufactured homes under a program must comply with the Manufactured Home Construction and Safety Standards in 24 CFR Part 3280; the installation, structural, and site requirements described in 24 CFR 203.43f; and the energy performance requirements of 24 CFR 200.926d(e).

Subpart D—Application and Selection Procedures

§ 280.200 Notice of fund availability.

HUD will periodically publish a Notice Of Fund Availability in the Federal Register. The Notice will:

(a) Explain how application packages providing specific application requirements and guidance may be obtained;

(b) Specify the place for filing completed applications, and the date by which the applications must be physically received at that location;

(c) State the amount of funding available under the Notice;

(d) Specify the maximum number of points that may be awarded under each of the ranking criterion described in § 280.220, and the commercial construction cost indices and data that will be used under ranking criteria described in § 280.220(b) (3) and (5).

(e) Provide other appropriate program information and guidance.

§ 280.205 Application requirements.

(a) *General.* Applicants must submit applications for assistance in the form and within the time periods established by HUD.

(b) *Application requirements.* At a minimum, HUD will require applications to include:

(1) Applicant data (identity, evidence of eligibility and capacity to carry out program activities, legal authority to submit the application and to participate in the program, and information necessary to demonstrate financial responsibility).

(2) A description of the proposed program, including:

(i) The program location. The applicant must identify the Census tracts, neighborhoods, and parcels of land where the program will be located. The applicant must demonstrate that the program will be located in one neighborhood or must provide the information necessary to meet the requirements of § 280.110(b)(2). In addition, the application must include evidence demonstrating the extent of physical and economic blight in each

neighborhood, must describe any improvement efforts undertaken or to be undertaken by units of general local government or private entities in the neighborhoods, and must describe the improvements in the quality and viability of the neighborhoods that will result from the proposed program and other efforts (see § 280.220(b)(4)).

(ii) Number of homes. The applicant must identify the number of homes that will be constructed or substantially rehabilitated under the program. If waiver of the program size limitation is sought, the application must include a waiver request and certification as described in § 280.105(b).

(iii) Architectural drawings. The application must include a site plan, and floor plans for typical units to be constructed or substantially rehabilitated under the program.

(iv) Substantial rehabilitation and construction. The application must include a description of the proposed construction and substantial rehabilitation. If the program involves substantial rehabilitation, the applicant must identify all existing structures that will be used in the program, describe the proposed rehabilitation activities, and demonstrate that the proposed rehabilitation activities will constitute substantial rehabilitation.

(v) Compliance with home quality standards. The applicant must certify that the proposed program will comply with the home quality standards contained in § 280.115.

(vi) Compliance with site control and zoning requirements. The applicant must demonstrate that the program will meet the site control and zoning threshold described at § 280.215(b)(7).

(3) Program financial data. The applicant must provide specific information on program costs and financing including:

(i) Total program development costs.

(ii) Sources and applications of all funds that will be used in the development of the program.

(iii) The source and amount of financial and other contributions to the program. For financial and other contributions to the program that will be made by entities other than the applicant, the application must provide firm commitments to provide the contributions to the program. The firm commitment must demonstrate the source's binding commitment to provide the contribution and the date upon which the contribution will be made available. The commitment may be contingent upon the applicant's selection for funding under this part.

(A) If "in kind" contributions are made to the program, the application

must include documentation supporting the valuation of the property. If real property is contributed, the supporting documentation must include an appraisal, acceptable to HUD, prepared by a real estate appraiser.

(B) If State or local governmental entities are prohibited from making a financial or other contribution to the program by State law, the application must identify the State law prohibiting the contribution.

(iv) Projected annual budget for each year until program completion.

(v) The amount of assistance requested under this part.

(4) Need. The application must include evidence of the demand for homes under the proposed program in the area to be served by the program. Housing demand may be demonstrated with a market analysis prepared by a reliable, knowledgeable source. Applicants are not required to submit commercially prepared market studies.

(5) A program schedule. The applicant must submit an estimated schedule for completion of the proposed program, including the dates of the commencement and completion of construction and substantial rehabilitation of any display homes; the date that homes will first be offered for sale; and the dates of the commencement and completion of construction and substantial rehabilitation of nondisplay homes. In addition, the applicant must submit evidence that each unit of local government in which the program is to be located has approved of the program schedule.

(6) Home sales description. The application must describe the applicant's home sales process, including the proposed marketing procedures, procedures for determining family eligibility, a copy of the proposed sales contract, the downpayment requirements, the projected sales prices of homes, and settlement procedures. The application should indicate whether the applicant is seeking a modification of the family income limitations under § 280.315(a).

(7) Local participation. The applicant must demonstrate that the local consultation requirements of § 280.215(b)(5) have been met, and must provide a narrative statement describing the involvement of neighborhood residents in the development of the proposed program, the likelihood of continued neighborhood resident participation in program activities following selection of the program, and the planned employment of neighborhood residents in the

construction or substantial rehabilitation of the program.

(8) Drug-free workplace certification. The applicant must certify that it will comply with the provisions of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D) and provide a drug-free workplace.

(9) Additional data. (i) If the application states that the number of housing units in a unit of general local government has significantly changed since the most recent decennial Census, the applicant must provide the additional information described at § 280.105(c).

(ii) If the application states that the most recent decennial Census does not reflect the current median family income for a Census tract, the applicant must provide the additional information described in § 280.110(a)(2).

(iii) If the homes will be located in a Census tract that does not meet the median family income requirements of § 280.110(a), but the homes will be located in a neighborhood that does meet these requirements, the applicant must provide the additional information described in § 280.110(a)(3).

(10) Other data as prescribed by HUD.

§ 280.207 Other Federal requirements.

The applicant (or recipient) must assure that the following additional requirements are met:

(a) *Nondiscrimination and equal opportunity.* The nondiscrimination and equal opportunity requirements that apply to NHOP include:

(1) The requirements of Title VIII of the Civil Rights Act of 1968 (42 U.S.C. 3601-20) (Fair Housing Act) and implementing regulations; Executive Order 11063 (Equal Opportunity in Housing) and implementing regulations at 24 CFR Part 107; and Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) (Nondiscrimination in Federally Assisted Programs) and implementing regulations issued at 24 CFR Part 1;

(2) The prohibitions against discrimination on the basis of age under the Age Discrimination Act of 1975 (42 U.S.C. 6101-07) and implementing regulations at 24 CFR Part 146, and the prohibitions against discrimination against handicapped individuals under section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and implementing regulations;

(3) The requirements of Executive Order 11246 (Equal Employment Opportunity) and the regulations issued under the Order at 41 CFR Chapter 60;

(4) The requirements of section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (Employment Opportunities for Lower

Income Persons in Connection with Assisted Projects) and implementing regulations at 24 CFR Part 135;

(5) The requirements of Executive Order Nos. 11625, 12432, and 12138. Consistent with HUD's responsibilities under these Orders, recipients must make efforts to encourage the use of minority and women's business enterprises in connection with funded activities; and

(6) The affirmative fair housing marketing requirements at 24 CFR Part 200, Subpart M, and the implementing regulations at 24 CFR Part 108.

(7) Racial and ethnic data collection requirements. Recipients must maintain current data on the race and ethnicity of program beneficiaries.

(b) *Displacement and relocation assistance.* (1) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. 4601) as amended by the Uniform Relocation Act Amendments of 1987, Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. 100-17, approved April 2, 1987) (URA) and government-wide implementing regulations at 49 CFR Part 24 set forth relocation assistance requirements that apply to the displacement of any person (family, individual, business, nonprofit organization or farm) as a direct result of acquisition, rehabilitation or demolition for a program assisted under this part.

(2) A displacement from the real property is covered by the URA if it occurs on or after the date that an application is submitted under this part and the application is later approved and funded, unless:

(i) The person has been evicted for cause based upon a serious or repeated violation of the material terms of the lease or occupancy agreement and HUD determines that the eviction was not undertaken for the purpose of evading the obligation to provide relocation assistance;

(ii) The person moved into the real property after the application was submitted, but received prior written notice of the expected displacement;

(iii) The person is an owner-occupant and has been informed that the real property will not be acquired for the program under the threat of eminent domain; or

(iv) The applicant (recipient) determines that the displacement did not occur as a direct result of the acquisition, rehabilitation, or demolition for the program, and HUD concurs in that determination.

(3) If a person is displaced from the real property before the submission of

the application, and either HUD or the applicant (recipient) determines that the displacement was a direct result of the acquisition, rehabilitation, or demolition, the person shall be eligible for relocation assistance as a displaced person.

(4) The applicant (recipient) may, at any time, request a HUD determination whether a displacement will be covered by the URA and the implementing regulations.

(5) A displaced person's eligibility for relocation assistance is subject to the requirements in 49 CFR Part 24.

(c) *Flood insurance purchase requirements.* Grants will not be provided to programs involving the acquisition or rehabilitation of a building located in an area that has been identified by the Federal Emergency Management Agency (FEMA) as a special flood hazard area, unless: (1) the community in which the area is situated is participating in the National Flood Insurance Program in accordance with the regulations under that program (44 CFR 59 through 79); or (2) less than a year has passed since FEMA notification regarding such hazards. A recipient may not make a loan under this part involving buildings located in these areas unless flood insurance on the structure is obtained by the purchaser in compliance with section 102(a) of the Flood Disaster Protection Act of 1973 (42 U.S.C. 4001 *et seq.*).

(d) *Applicability of OMB Circulars.* The policies, guidelines, and requirements of OMB Circular Nos. A-110 and A-122 apply to the acceptance and use of assistance by nonprofit organizations.

(e) *Lead-based paint.* (1) The requirements of the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) and implementing regulations at 24 CFR Part 35 (except as superseded in paragraph (e)(2), of this section apply to the program.

(2)(i) This paragraph implements the provisions of section 302 of the Lead-Based Paint Poisoning Prevention Act, 42 U.S.C. 4822, by establishing procedures to eliminate, as far as practicable, the hazards of lead-based paint poisoning with respect to structures for which assistance is provided under this part. This paragraph is promulgated under 24 CFR 35.24(c)(4) and supersedes, with respect to assistance under this part, the requirements prescribed in Subpart C of 24 CFR Part 35. The requirements of this paragraph apply to structures that are occupied or are expected to be occupied by children under seven years of age.

(ii) The following definitions apply to this paragraph (e):

Applicable surface means all interior and exterior surfaces of a residential structure.

Chewable surface means all chewable protruding painted surfaces up to five feet from the floor or ground, which are readily accessible to children under seven years of age: e.g., protruding corners, windowsills and frames, doors and frames, and other protruding woodworks.

Defective paint surfaces means paint on applicable surfaces that is cracking, scaling, chipping, peeling, or loose.

Elevated blood lead level or EBL means excessive absorption of lead: i.e., a confirmed concentration of lead in whole blood of 25 µg/dl (micrograms of lead per deciliter of whole blood) or greater.

Lead-based paint means a paint surface, whether or not defective, identified as having a lead content greater than or equal to 1 mg/cm².

(iii) In the case of a structure constructed or substantially rehabilitated before 1978, the applicant must inspect the structure for defective paint surfaces before it submits an application. If defective paint surfaces are found, treatment in accordance with 24 CFR(b)(2)(ii) is required. Correction of defective surfaces found during the inspection must be completed before initial occupancy of the structure.

(iv) In the case of a structure constructed or substantially rehabilitated before 1978, if the recipient is presented with test results that indicate that the family purchasing a home under the program includes a child under the age of seven years who has an elevated blood lead level (EBL), the recipient must cause the unit to be tested for lead-based paint on chewable surfaces. Testing must be conducted by a State or local health or housing agency, by an inspector certified by a State or local health or housing agency, or by an association recognized by HUD. Lead content must be tested by using an X-ray fluorescence analyzer (XRF) or other method approved by HUD. Test readings of 1 mg/cm² or higher using an XRF shall be considered positive for presence of lead-based paint. Where lead-based paint on chewable surfaces is identified, covering or removal of the paint surface in accordance with 24 CFR 35.24(b)(2)(ii) is required.

(v) In lieu of the procedures set forth in the preceding clause, the recipient may, at its discretion, abate all interior and exterior chewable surfaces in accordance with the methods set out at 24 CFR 35.24(b)(2)(ii).

(vi) The recipient must take appropriate action to protect residents of the structure from hazards associated with abatement procedures.

(vii) The recipient must keep a copy of each inspection report for an least three years. If a unit requires testing, or treatment of chewable surfaces based on the testing, the recipient must submit the test results and, if applicable, the certification of treatment to HUD. HUD will retain the records in the recipient's case file. The records must indicate which chewable surfaces in the units have been tested or treated. If records establish the certain chewable surface were tested, or tested and treated, in accordance with the standards prescribed in this section, these surfaces do not have to be tested or treated as any subsequent time.

(3) The applicant or recipient, however, must ensure that the program sponsor carries out all requirements in accordance with the paragraph, and must retain ultimate responsibility for complying with the requirements of this paragraph.

(f) *Conflicts of interest.* No person (1) who is an employee, agent, consultant, officer, or elected or appointed official of the recipient that receives assistance under the program and who exercises or has exercised any functions or responsibilities with respect to activities under the program or (2) who is in a position to participate in a decisionmaking process of gain inside information with regard to such activities, may obtain a personal or financial interest of benefit from the activity, or have an interest in any contract, subcontract, or agreement with respect thereto, or the proceeds thereunder, either for him or herself or for those with whom he or she has family or business ties, during his or her tenure or for one year thereafter. The provisions of paragraph (e)(1) of this section do not prohibit a non-managerial and nonsupervisory employee who is otherwise eligible, from purchasing a home under this part.

(g) *Use of debarred, suspended, or ineligible contractors.* The provisions of 24 CFR Part 24 apply to the employment, engagement of services, awarding of contracts, or funding of any contractors or subcontractors during any period of debarment, suspension, or placement in ineligibility status.

(h) *Audit.* Recipients are subject to the audit requirements of OMB Circular A-110. HUD may perform or require further and additional audits as it finds necessary or appropriate.

(i) *Coastal Barriers Resources Act.* The Coastal Barriers Resources Act of

1982 (16 U.S.C. 3601) applies to the program.

(j) *Davis-Bacon Act.* The prevailing wage rate determinations under the Davis-Bacon Act (40 U.S.C. 276a-276a-5) do not apply to the program.

(k) *Drug-Free Workplace.* The Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D) and HUD's implementing regulations at 24 CFR Part 24 (Subpart F) apply to NHOP recipients.

§ 280.210 Selection process.

The section process for applications for assistance under this part has three stages: (a) the threshold stage (see § 280.215); (b) the ranking stage (see § 280.220); and (c) the final selection stage (see § 280.225).

§ 280.215 Threshold requirements.

(a) *General.* To be eligible for evaluation under the ranking criteria set out in § 280.220, applications must meet each of the threshold criteria described below. Applications that fail to meet all threshold criteria will not be eligible for assistance under this part.

(b) *Threshold criteria.* The threshold criteria are:

(1) *Form, time and adequacy of the application.* The application must be filed in the application form prescribed by HUD under § 280.205, and within the time period established by HUD in the notice of funds availability under § 280.200.

(2) *Applicant—(i) Eligibility to receive assistance.* The applicant must demonstrate that it is a nonprofit organization. An applicant will meet this threshold requirement if it demonstrates that it applied for a tax exemption ruling from the Internal Revenue Service under section 501(c) of the Internal Revenue Code of 1986 before the submission of its application. However, assistance will not be provided until an effective tax exemption ruling has been issued by the Internal Revenue Service.

(ii) *Financial responsibility.* The applicant must demonstrate its financial responsibility. In making its determination of financial responsibility, HUD will consider the applicant's ability to maintain a functioning accounting system for the organization in accordance with generally accepted accounting principles.

(iii) *Capacity.* Each applicant must demonstrate that it has the ability to carry out activities under the program within a reasonable time after execution of the grant agreement with HUD, and in a successful manner. In making this determination, HUD will consider the extent and quality of the applicant's

past experience in developing or administering program similar to the proposed program. HUD will also consider the ability of applicant's personnel to perform administrative, managerial, and operational functions necessary to the successful development and administration of the proposed program.

(iv) *Legal authority.* Each applicant: (A) Must demonstrate that it has the legal authority to participate in the program and to carry out activities in accordance with program requirements, and the requirements of other applicable Federal law.

(B) Must certify that a resolution, motion, or similar action has been duly adopted or passed as an official act by its governing body, authorizing the submission of the application under this part.

(3) *Program eligibility.* The applicant must demonstrate that the program meets the program size, location and home quality requirements described under Subpart C of this part, and that the sales contract will meet the requirements described at § 280.320.

(4) *Need.* The applicant must demonstrate that there is a demand for homes in the area to be served by the program among eligible purchasers and that this demand is or will be sufficient to ensure the sale of all homes constructed or substantially rehabilitated under the program consistent with the program schedule submitted under § 280.205(b)(5).

(5) *Local consultation requirements.* (i) The applicant must demonstrate that it has consulted with, and received the support of, residents of the neighborhood in which the program is to be located. At a minimum, the applicant must demonstrate that it provided a description of the program to the residents of the neighborhood and requested their comments on the proposal. The method used by the applicant to furnish information to the residents must be designed to ensure that all residents receive actual or constructive notice of the program description and the request for comments. Constructive notice is publication at least once a week for two consecutive weeks in a newspaper of general circulation serving the neighborhoods in which the program will be located. Support of the residents may be demonstrated by such documents as a summary of all comments received to the request, the transcript of any public meeting, and affidavits of support submitted by local residents of the neighborhood.

(ii) The applicant must also submit a written statement signed by the chief

elected official of each unit of general local government in which the program is to be located, stating that the unit of general local government approves of the proposed program.

(6) *Financial feasibility of the program.* The applicant must demonstrate that the proposed program is financially feasible. In determining financial feasibility, HUD will consider: (i) the sources and amounts of financial or other resources that will be used to carry out the program (including the availability of financial and other contributions to the program); and (ii) the total projected program costs.

(7) *Siting and zoning.* Applicants must meet the following siting and zoning requirements at the time of the application:

(i) The applicant must demonstrate that it has control of the site involved. The applicant must demonstrate that it owns or has an option to purchase the properties involved, or has a long-term lease or has an option on a long-term lease on such properties.

(ii) The applicant must demonstrate that the proposed use of the site is permissible under applicable zoning ordinances and regulations; or provide a statement describing the proposed actions necessary to make the use of the site permissible under applicable zoning ordinances and regulations, and demonstrate that there is a reasonable basis to believe that the proposed zoning actions will be completed successfully within six months following the submission of the application.

(8) *Environmental review.* (i) HUD will assess the environmental effects of each proposal in accordance with the provisions of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321) and HUD's regulations at 24 CFR Part 50 which implement NEPA, the National Historic Preservation Act, and the other environmental authorities cited at 24 CFR 50.4. Any application that requires an Environmental Impact Statement (EIS) (generally, those applications that HUD determines would have an unavoidable significant impact on the human environment, in accordance with the environmental assessment procedures at 24 CFR Part 50, Subpart E) will not be eligible for assistance under this part. This review is not intended to prohibit or discourage the use of historic property. The use of historic property in the proposed program or the presence of an historic property in the proposed program area alone will not constitute an unavoidable significant impact on the human environment requiring the preparation of an EIS.

(ii) The environmental review may reveal information not contained in the application that may have relevance to the selection process. HUD will consider such relevant information under the appropriate threshold and ranking criteria.

§ 280.220 Ranking criteria.

(a) *In general.* Applications that fully meet each of the threshold requirements of § 280.215 will be assigned a rating score and will be placed in ranked order, based upon the criteria described in paragraph (b) of this section. The number of points that will be awarded under each ranking criterion will be announced in the Notice Of Fund Availability under § 280.200. The maximum number of points possible under each ranking criterion will be not less than 10 percent of the maximum number of total points possible under all of the ranking criteria.

(b) *Criteria.* The ranking criteria are:

(1) *Contributions of land.* (i) HUD will consider the extent to which non-Federal public and private entities have contributed or will contribute land necessary to make the program feasible. To be considered under this criterion, the contribution of land must meet the definition of financial and other contributions to the program as described in § 280.5.

(ii) For the purposes of this criterion, land is necessary to the feasibility of the program if the land is used to provide individual lots for homes constructed or substantially rehabilitated under the program. Other contributions of land, such as land that will be used for parks, green spaces, or lots to support community facilities, are not necessary to the feasibility of the program and will not be considered under this criterion. Such contributions, however, may be considered if the requirements of paragraph (b)(2) of this section are met.

(iii) HUD will award the maximum number of points to applications that involve programs for which all land necessary to the feasibility of the program will be contributed from such sources.

(2) *Other contributions.* (i) HUD will consider the extent to which non-Federal public or private financial and other contributions to the program will reduce the cost to families purchasing homes constructed or substantially rehabilitated under the program. Programs that receive such contributions under a State-designated enterprise zone program will receive additional points under this criterion. For the purpose of this criterion, a State-designated enterprise zone means an

area that is designated in accordance with a State law, State executive order, or State plan that recognizes distressed areas and encourages or offers incentives for private investment that will create jobs and assist in the economic revitalization of the area.

(ii) Donations of land will not be considered under this criterion to the extent that such donations are considered under paragraph (b)(1) of this section.

(iii) HUD will assign the maximum number of points under this criterion to applications: that involve financial and other contributions to the program that will result in the greatest reduction in purchase price and carrying charges to families purchasing homes constructed or substantially rehabilitated under the program; and that will receive such contributions under a State-designated enterprise zone program.

(3) *Cost effectiveness.* HUD will consider the degree to which each program will produce the maximum number of homes for the least amount of assistance under this part, taking into consideration cost differences among different market areas. For each application, HUD will: (i) adjust the amount of requested assistance to eliminate cost differences between market areas by applying a commercial construction cost index selected by HUD and announced in the Notice of Fund Availability under § 280.200; and (ii) divide the adjusted assistance by the number of homes to be constructed or substantially rehabilitated under the program. Applications that have the smallest adjusted assistance average will receive the maximum number of points under this criterion.

(4) *Neighborhood blight.* (i) HUD will consider the degree of the physical and economic blight in the neighborhoods in which the program is located. In determining the degree of physical blight, HUD will consider the condition (but not the age) of existing housing, other buildings, and the infrastructure in the neighborhoods. In assessing the degree of economic blight, HUD will consider such factors as the unemployment rate, median family income and crime rate in the neighborhoods. HUD will assign the maximum number of points under this factor to applications that demonstrate the greatest degree of physical and economic blight.

(ii) HUD will also consider the impact that the proposed program, by itself or together with improvement efforts that are or will be undertaken in the neighborhoods by units of general local government or private entities, will have upon the quality and viability of the

neighborhoods. Other improvement efforts may include the construction or rehabilitation of other structures, improvements to public facilities or services, or the expansion of private enterprise in the neighborhoods. HUD will assign the maximum number of points under this factor to applications that demonstrate that the program, by itself or together with other improvement efforts, will result in a substantial improvement in the overall quality and long-term viability of the neighborhood.

(5) *Construction cost.* HUD will consider the degree to which the applicant will use construction or rehabilitation methods that will reduce the cost per square foot for the proposed program below the average construction cost per square foot in the market area involved. HUD will determine: (i) the average construction cost per square foot in the market area of the proposed program by referring to a commercially available publication issuing construction cost data for the market area (the construction cost publication will be selected by HUD and announced in the notice of fund availability under § 280.200); and (ii) the average construction or rehabilitation cost per square foot of the program (as adjusted for cost reductions that are attributable solely to financial and other contributions to the program). HUD will award the maximum number of points under this criterion to the applications in which the average adjusted cost per square foot for the program is the smallest percentage of the average construction cost per square foot in the market area.

(6) *Local resident involvement.* HUD will consider the degree to which the program provides for the involvement of local residents of the neighborhood in the planning and construction or substantial rehabilitation of homes. Under this criterion, HUD will consider: (i) the extent to which residents of the neighborhood will be employed in the construction and substantial rehabilitation of homes in the program; (ii) the extent to which local residents, individually or through membership in local organizations, have advised or assisted the applicant in the development of the proposed program, or have participated on committees or governing boards of the applicant involved in the development of the proposed program; and (iii) the likelihood of continued participation by local residents in program activities following selection. The maximum number of points under this criterion will be awarded to applicants that demonstrate a commitment to employ a

significant number of local residents in the construction or substantial rehabilitation of homes in the program; a significant past commitment by local residents to the development of the program; and a strong likelihood that this level of commitment to the program will continue through program completion.

(c) *Exception.* If State or local governmental entities are prohibited by State law from making a financial or other contribution to a program and the contribution would be eligible for consideration under the criterion described at paragraph (b) (1) or (2) of this section, HUD will not penalize an applicant under the ranking process for the lack of such a contribution to the program.

§ 280.225 Final selection.

In the final stage of the selection process, the highest-ranked applications will be considered for final selection in accordance with their rank order, as determined under § 280.220. If the highest-ranked applications involve programs that predominantly serve one geographic area, HUD may substitute one or more other highly-ranked applications to ensure reasonable geographic variety in the program. Upon completion of final selection, HUD will notify each successful applicant of its selection. HUD will also notify each unsuccessful applicant that it has not been selected, and will provide the unsuccessful applicant with an explanation for the denial of the application.

Subpart E—Program Operation

§ 280.300 Obligation of funds.

When HUD selects an application for funding, it will obligate sufficient amounts for a grant to cover the aggregate amount of the loans proposed under the selected program.

§ 280.303 Grant agreement.

(a) *General.* The recipient's responsibilities under NHOP will be incorporated in a grant agreement executed by HUD and the recipient.

(b) *HUD Monitoring.* HUD will monitor the recipient's performance to determine whether the recipient is complying with the requirements of the grant agreement. HUD will rely on such data as information obtained from the recipient's records and reports, findings from on-site monitoring and audit reports.

§ 280.305 Minimum participation.

The recipient may not begin the construction or substantial

rehabilitation of homes until 25 percent of the homes to be constructed or substantially rehabilitated under the program are contracted for sale to purchasers who intend to live in the homes and the downpayments required under § 280.320(b) are made. However, the recipient may construct and substantially rehabilitate homes for the purpose of display to potential homeowners. The maximum number of display homes is limited to five percent of the number of homes to be constructed or substantially rehabilitated under the program, or three homes, where the program involves less than 60 homes.

§ 280.315 Eligible purchasers.

(a) *Income limitations.* (1) Each family purchasing a home constructed or substantially rehabilitated under a program must have a family income on the date of purchase that does not exceed the following limitations:

(i) For programs located in a metropolitan statistical area, the family income may not exceed the higher of:

(A) The median family income for the metropolitan statistical area in which the program is located. At any time during the development of the program, the recipient may request HUD to modify this family income requirement. To obtain a modification, the recipient must submit a request by a unit of general local government in which the program is located, and supporting documentation demonstrating to HUD that such action is necessary to achieve or maintain neighborhood stability. If a modification is granted, HUD may permit up to 15 percent of the families that purchase homes under this part, to have a family income on the date of purchase that is between 100 and 115 percent of the median family income for the metropolitan statistical area.

(B) The national median income.

(ii) For programs that are not located in a metropolitan statistical area, the family income may not exceed the national median income.

(2) For the purpose of determining the median family income for the nation and metropolitan statistical areas, the recipient must use the most recent median family incomes developed by HUD under Section 8 of the United States Housing Act of 1937. Family income is the annual income as computed in accordance with 24 CFR 813.106.

(b) *Homeownership.* No member of a family purchasing a home constructed or substantially rehabilitated under the program may have owned a home at any time during the three years before the date of purchase.

§ 280.320 Sales contract and downpayment requirements.

(a) *Sales contract.* The recipient and each family purchasing a home constructed or substantially rehabilitated under the program must execute a sales contract. The sales contract shall contain appropriate terms and conditions covering the purchase of the home and must contain:

(1) The downpayment provisions described in paragraph (b) of this section;

(2) The repayment provisions described at § 280.330 of this part.

(3) Such other terms and conditions as HUD may require.

(b) *Downpayment.* Each family purchasing a home constructed or substantially rehabilitated under the program must provide a downpayment. A governmental entity or instrumentality may not provide funds for the family's downpayment.

(1) *Amount.* The amount of the downpayment includes all cash contributions made by the family (e.g., contributions for settlement and closing costs). The total amount of the downpayment must be equal to 10 percent of the sales price of the home except:

(i) The recipient may require a downpayment that is greater than 10 percent of the sales price of the home, if the recipient has determined that a higher downpayment is appropriate.

(ii) The recipient may require a downpayment that is less than 10 percent of the sales price of the home, if the first mortgage on the home is to be held by a State or a unit of general local government under a home loan program provided by the State or unit of general local government, and the program provides for a lower downpayment.

(2) *Date of downpayment.* The downpayment must be made on the date required by the recipient. Under § 280.305, however, no construction or rehabilitation may be begun until at least 25 percent of the homes constructed or substantially rehabilitated under the program are contracted for sale to purchasers who intend to live in the homes and the downpayments are made.

(3) *Interest.* The recipient shall deposit the downpayment in an account with a federally insured bank, savings and loan institution or credit union. The recipient shall pay interest on the downpayment to the family from the date that downpayment is made through the date of settlement, at the actual rate of interest earned on the account. Under no circumstances may the interest rate paid to the family be lower than the lowest passbook rate of interest paid by a

federally insured bank, savings and loan institution or credit union conducting business within the State in which the program is located.

§ 280.322 Loan requirements.

(a) *Loan requirements.* A loan made to a family purchasing a home constructed or substantially rehabilitated under the program:

(1) Must be secured by a second mortgage held by HUD on the property involved;

(2) May not exceed \$15,000;

(3) May not bear interest;

(4) Is repayable to HUD upon the sale, lease, or other transfer of the property.

(5) Must be applied by the family to the purchase price of the home.

(6) May not be used by the family to provide the downpayment required under § 280.230.

(7) Is subject to such other terms and conditions as HUD may require.

(b) *Reimbursement of recipient.*

Within 30 days after the date of purchase of a home with a loan under this part, HUD will provide the recipient with an amount equal to the amount of the loan.

§ 280.330 Repayment of loan.

(a) *Repayment.* A family purchasing a home with a loan under this part must repay the loan to HUD, if the family sells, leases, or transfers any interest in the property. If the family refinances the first mortgage and the refinancing is unrelated to a sale, equity withdrawal, lease or transfer of an interest in the property, the family will not be required to repay the loan. If the refinancing of the first mortgage involves an equity withdrawal, the family will be required to repay the loan to HUD to the extent of the withdrawal. To the extent that repayment is not required as a result of refinancing, the second mortgage held by HUD on the property will remain in force until the loan is repaid in full.

(b) *HUD-approval.* (1) The family may request HUD approval of a sale, equity withdrawal or other transfer of the property without full repayment. Approval will be granted if HUD determines that an undue hardship will result from the application of the repayment requirement. Generally, HUD will make this finding only if the proceeds of the transaction are insufficient to repay the loan amount in full and approval will be granted only to the extent that the proceeds of the transaction are insufficient to repay the loan in full. HUD will not approve the lease of a home without repayment.

(2) To the extent that HUD approves a sale or transfer without repayment, the

second mortgage held by HUD on the property will remain in force until the loan is repaid in full.

§ 280.335 Funding amendments and deobligation of funds.

(a) *Increases.* After the initial obligation of funds, HUD will not make any upward revisions to the amount obligated.

(b) *Deobligation.* (1) HUD may deobligate amounts:

(i) If the amount of the loans provided under the program are less than the amount of the loans anticipated in the application; or

(ii) If the recipient fails to carry out activities under the program within a reasonable time after selection;

(2) If as a result of an audit, HUD determines that the recipient has expended funds for uses that are ineligible under this part, HUD may adjust or deobligate funding amounts, as

appropriate, to recover the ineligible costs.

(3) The grant agreement may set forth in detail other circumstances under which funds may be deobligated, and other sanctions may be imposed.

Dated: May 15, 1989.

James E. Schoenberger,
General Deputy Assistant Secretary for
Housing-Federal Housing Commissioner.

[FR Doc. 89-12131 Filed 5-19-89; 8:45 am]

BILLING CODE 4210-27-M

Federal Register

**Monday
May 22, 1989**

Part VII

Department of Transportation

Federal Aviation Administration

14 CFR Part 121

**Protective Breathing Equipment; Final
Rule; Amendment of Compliance Dates**

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 121****[Docket No. 24792; Amdt. 121-204]****Protective Breathing Equipment****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Final rule; amendment of compliance dates.

SUMMARY: This amendment revises §§ 121.337(f) and 121.417(d) by changing the compliance date for installing protective breathing equipment (PBE) and for training air carrier crewmembers in the use of PBE. The compliance date is extended from July 6, 1989, to January 31, 1990. This amendment is necessary due to technical problems and delays in the certification of PBE and production problems experienced by several manufacturers of PBE. By extending the compliance date, air carriers will not be penalized for the supply problems caused by the delayed certification and production of PBE units.

DATES: Effective May 22, 1989. Comments must be received by July 21, 1989.

ADDRESSES: Comments on this amendment may be mailed in duplicate or delivered to: Federal Aviation Administration, Office of Chief Counsel, Attention: Rules Docket (AGC-204), Docket No. 25909, 800 Independence Avenue Washington, DC 20591.

FOR FURTHER INFORMATION CONTACT: Gary E. Davis, Project Development Branch, AFS-240, Air Transportation Division, Office of Flight Standards, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, Telephone (202) 267-8096.

SUPPLEMENTARY INFORMATION:**Background**

The FAA states in the preamble to Amendment No. 121-193, dated June 3, 1987, that tests show there is at least one currently available portable smoke hood device that would essentially provide the required levels of protection for crewmembers combating fires. Further, the amendment states that the 2-year compliance period for PBE should allow ample time for development, manufacture, and distribution of adequate numbers of new equipment and time for required training.

The statement concerning the 2-year compliance period being ample later proved to be in error. Although the FAA issued certification standards on April

21, 1987, manufacturers encountered difficulties designing a PBE unit that met those standards. On May 24, 1988, an FAA memorandum was sent to field offices providing guidance and clarification on these problems. In October 1988, after a major product redesign, one vendor's PBE unit design was approved. Manufacturing approval for this unit was obtained in November 1988.

Since November 1988, one PBE vendor had discontinued manufacturing the units due to production problems. Production was resumed in April 1989, with deliveries completed in September 1989. Other PBE vendors are also experiencing production difficulties. In addition, air carriers cannot train crewmembers without PBE units; therefore, the production delays cause the concurrent problem of air carriers not meeting the compliance date for crewmember training.

If the compliance date is not changed, several air carriers will have to conduct special out-of-cycle installation and training programs. Such programs will require air carriers to remove a large number of aircraft from public service. Other air carriers will not achieve compliance under any circumstances.

The FAA has determined that the original 2-year compliance period does not provide enough time for development, manufacture, and distribution of adequate numbers of PBE units. Although the air carriers have made a good faith effort to comply with the rule, compliance by July 6, 1989, is impracticable. In this case, extension of the compliance date is justified and in the public interest. Therefore, the FAA is amending §§ 121.337(f) and 121.417(d) to change the compliance date in the regulations from July 6, 1989, to January 31, 1990.

Good Cause Justification for Immediate Adoption

This amendment is being adopted without notice and public comment procedure because delay could have a significant impact on passenger service without increasing the level of safety. In this case, the compliance problem is a result of certification and production delays forcing manufacturers of PBE units to delay production and delivery schedules. Thus, air carrier compliance is an industry wide problem making the exemption process impractical and rulemaking necessary. However, issuance of a notice of proposed rulemaking would delay the final rule beyond the current compliance date of July 6, 1989, forcing many air carriers into noncompliance. Noncompliance, even for a short period of time, would

require air carriers to remove all noncomplying aircraft from service until the final rule could be issued. To avoid widespread disruption of passenger service, the FAA finds that the compliance date should be extended until January 31, 1990. Accordingly, I find that notice and public procedure are impracticable and contrary to the public interest. In addition, since this amendment relieves a restriction, I find it may be made effective in less than 30 days.

Interested persons are invited to submit such comments as they may desire regarding this amendment. Communications should identify the docket number and be submitted in duplicate to the address above. All communications received on or before the close of the comment period will be considered by the Administrator, and this amendment may be changed in light of the comments received. All comments will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested parties.

Trade Impact Statement

The FAA finds that this amendment will have no impact on international trade.

Economic Assessment

Because the amendment does not impose any cost to operators, the impact of the delay in compliance is expected to be minimal. Accordingly, a full Regulatory Evaluation is not warranted.

Federalism Implications**Final Rule**

The regulation adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this amendment would not have federalism implications requiring the preparation of a Federalism Assessment.

Conclusion

This amendment will not have an economic effect on the public. The delayed compliance date will allow air carriers to keep non-complying airplanes operating so that passenger service will not be disrupted. Because the delay in installing PBE units is so short, the effect on passenger safety is diminutive. Therefore, the FAA has determined that this amendment involves a regulation which is not major

under Executive Order 12291 or significant under the Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since no small entities would be affected by the rule, it is certified that under the criteria of the Regulatory Flexibility Act the rule will not have a significant economic impact, positive or negative, on a substantial number of small entities. Because of the absence of any costs attendant with the amendment, the FAA has determined that the expected impact of the amendment is so minimal that it does not warrant a full regulatory evaluation.

List of Subjects in 14 CFR Part 121

Air safety, Air transportation, Aviation safety, Drug abuse, Narcotics, Safety, Transportation.

Adoption of the Amendment

Accordingly, Part 121 of the Federal Aviation Regulations (14 CFR 121) is amended as follows:

PART 121—CERTIFICATION: FLIGHT CREWMEMBERS OTHER THAN PILOTS

1. The authority citation for Part 121 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1421, 1422, and 1427; 49 U.S.C. 106(g) (revised, Pub. L. 97-449, January 12, 1983).

2. By revising § 121.337(f) to read as follows:

§ 121.337 Protective breathing equipment.

(f) Notwithstanding the provisions of paragraphs (a) and (b) of this section, the final compliance date for furnishing

portable PBE for use on combatting in-flight fires aboard airplanes shall be January 31, 1990.

3. By revising § 121.417(d) to read as follows:

§ 121.417(d) Crewmember emergency training.

(d) After January 31, 1990, no crewmember may serve in operations under this part unless that crewmember has performed the firefighting drill prescribed by paragraph (c)(1)(i) of this section.

Issued in Washington, DC, on May 17, 1989.

Robert E. Whittington,

Acting Administrator.

[FR Doc. 89-12260 Filed 5-17-89; 5:06 pm]

BILLING CODE 4910-13-M

[The page contains extremely faint, illegible text, likely bleed-through from the reverse side. The text is organized into several paragraphs and possibly a list or table structure, but the characters are too light to transcribe accurately.]

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LIST OF PUBLIC LAWS**Last List May 18, 1989**

This is a continuing list of public bills from the current session of Congress which have become Federal laws. It may be used in conjunction with "PLUS" (Public Laws Update Service) on 523-6641. The text of laws is not published in the **Federal Register** but may be ordered in individual pamphlet form (referred to as "slip laws") from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (phone 202-275-3030).

S.J. Res. 37/Pub. L. 101-29

Designating the week beginning May 14, 1989, and the week beginning May 13, 1990, as "National Osteoporosis Prevention Week" (May 17, 1989; 103 Stat. 58; 1 page) Price: \$1.00

CFR CHECKLIST

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An asterisk (*) precedes each entry that has been issued since last week and which is now available for sale at the Government Printing Office.

New units issued during the week are announced on the back cover of the daily **Federal Register** as they become available.

A checklist of current CFR volumes comprising a complete CFR set, also appears in the latest issue of the LSA (List of CFR Sections Affected), which is revised monthly.

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