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Monday	Tuesday	Wednesday	Thursday	Friday
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DOT/NHTSA	USDA/FNS		DOT/NHTSA	USDA/FNS
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Documents normally scheduled on a day that will be a Federal holiday will be published the next work day following the holiday.

Comments on this program are still invited. Comments should be submitted to the Day-of-the-Week Program Coordinator, Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408.

ATTENTION: For questions, corrections, or requests for information please see the list of telephone numbers appearing on opposite page.

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Title 7—Agriculture

CHAPTER II—FOOD AND NUTRITION SERVICE, DEPARTMENT OF AGRICULTURE

PART 210—NATIONAL SCHOOL LUNCH PROGRAM

PART 220—SCHOOL BREAKFAST PROGRAM

[CFR Correction]

The following are corrections to Title 7, Parts 210 to 699, revised as of January 1, 1977.

1. In § 210.8, the title and paragraph (e) should read as set forth below:

§ 210.8 Requirements for participation.

* * * * *

(e) The State agency, or the Department through FNSRO where applicable, shall enter into a written agreement with each School Food Authority for schools approved for participation in the Program. Such agreements shall provide that the School Food Authority shall, with respect to participating schools under its jurisdiction:

(1) Operate a nonprofit lunch program and observe the limitations on the use of Program income set forth in § 210.7(b) and on any competitive food service set forth in § 210.15b of this part;

(2) Limit its operating balance to a level consistent with Program needs;

(3) Serve lunches which meet the minimum requirements prescribed in § 210.10 during a period designated as the lunch period by the School Food Authority;

(4) Price the lunch as a unit;

(5) Supply lunches without cost or at reduced price to all children who are determined by the school food authority to be unable to pay the full price thereof in accordance with the free and reduced price policy statement approved under Part 245 of this chapter;

(6) Make no discrimination against any child because of his inability to pay the full price of the lunch in accordance with such approved free and reduced price policy statement;

(7) Claim reimbursement only for the type or types of lunches specified in the agreement;

(8) Submit claims for reimbursement in accordance with procedures established by the State Agency, or FNSRO where applicable;

(9) Maintain, in the storage, preparation and service of food, proper sanitation and health standards in conformance with all applicable State and local laws and regulations;

(10) Purchase, in as large quantities as may be efficiently utilized in its lunch program, foods designated as plentiful by the State Agency or the department;

(11) Accept and use, in as large quantities as may be efficiently utilized in its lunch program, such foods as may be offered as a donation by the Department;

(12) Maintain necessary facilities for storing, preparing and serving food;

(13) Maintain a financial management system as prescribed by the State agency, or FNSRO where applicable;

(14) Upon request, make all accounts and records pertaining to its lunch program available to the State agency and to FNS, for audit or review, at a reasonable time and place. Such records shall be retained for a period of three years after the end of the fiscal year to which they pertain, except that if audit findings have not been resolved, the records shall be retained beyond the three-year period as long as required for the resolution of the issues raised by the audit.

(15) Comply with the requirements of the Department's regulations respecting nondiscrimination (7 CFR Part 15).

(16) Retain the individual applications for free and reduced price lunches submitted by families for a period of three years after the end of the fiscal year to which they pertain, except that if audit findings have not been resolved, the records shall be retained beyond the three-year period as long as required for the resolution of the issues raised by the audit;

(17) Estimate, as of October 1 and March 1 of each year, the number of children in the school who are eligible for free and reduced price lunches under the school's approved eligibility criteria for such lunches. The data used to make these estimates shall be maintained as part of the records to be retained by School Food Authorities.

2. In § 220.16, the words "or School Food Authority", "or School Food Authority's" and "or School Food Authorities" are deleted wherever they appear.

CHAPTER VII—AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE (AGRICULTURAL ADJUSTMENT), DEPARTMENT OF AGRICULTURE

BEEF RESEARCH AND INFORMATION

Procedure for the Conduct of Referendums in Connection

CROSS REFERENCE: For a document issued jointly by the Department of Agriculture's Agricultural Stabilization and Conservation Service and Agricultural Marketing Service on the subject of beef research and information, see FR Doc. 77-15410 appearing in the rules and regulations section of this issue.

PART 725—FLUE-CURED TOBACCO

Subpart—Flue-Cured Tobacco Acreage Allotment and Marketing Quota Regulations, 1973-74 and Subsequent Marketing Years

TRANSFER OF FLUE-CURED TOBACCO QUOTAS BY LEASE AND OTHER MISCELLANEOUS AMENDMENTS

AGENCY: Agricultural Stabilization and Conservation Service, USDA.

ACTION: Final rule.

SUMMARY: This rule changes the eligibility requirements for lease and transfer of flue-cured tobacco quota if the transfer agreement is filed after June 14. The rule also requires tobacco dealers to obtain the signature of the seller of flue-cured tobacco on a prescribed form if tobacco is purchased at nonauction. The changes in leasing were requested by flue-cured tobacco producers because many producers were speculating in flue-cured tobacco leasing. This rule is designed to prevent speculation in flue-cured tobacco leasing.

EFFECTIVE DATE: June 15, 1977.

FOR FURTHER INFORMATION CONTACT:

Jack S. Forlines, Program Operations Division, Agricultural Stabilization and Conservation Service, USDA, P.O. Box 2415, Washington, D.C. 20013. (202) 447-7935.

SUPPLEMENTARY INFORMATION: On March 29, 1977, a notice of proposed rulemaking was published (42 FR 16633) relating to the requirements that a flue-cured tobacco farmer must meet in order to transfer flue-cured tobacco quota by lease if a transfer agreement is filed with the county ASC committee after June 14. The primary purpose of the proposal was to stop speculation on leasing quota. The proposal also included a change to require the signature on form MQ-72-2 of the seller of flue-cured tobacco if the tobacco is sold as a nonauction sale. Other less significant changes were proposed.

Most of the comments received in response to the proposal were favorable. A few commenters said that the existing rules for leasing flue-cured tobacco quota were adequate. One commenter said that the proposed change as it relates to a farm's eligibility to receive leased quota is not needed because it would create a hardship on a farmer and would almost stop leasing of flue-cured tobacco quota after June 14. Another commenter said that the proposal seemed too complicated. Other comments were received

which were not within the scope of the proposal.

DISCUSSION OF COMMENTS

1. *Are existing rules adequate?* Public meetings were held throughout the flue-cured tobacco producing area in December 1976. Many participants expressed the opinion that steps needed to be taken to prevent speculation on leasing of flue-cured tobacco quota. It was said that some farmers were leasing quota to their farm without expecting to produce enough tobacco to market their entire quota. These farmers leased the quota to other farmers during the selling season. They charged the receiving farmer a much higher rate for the quota than they initially had paid for the quota earlier in the year. The administrator believes that most flue-cured tobacco growers want the rules changed to stop the practice of speculation in leasing flue-cured tobacco quota. It is the administrator's opinion that the adoption of the rule will meet that objective.

2. *Would limiting the amount of quota that could be transferred to a farm after June 14 cause a hardship on the farmer?* Some additional effort may be required by the farmer; however, leasing excessive quota to a farm is another means of speculating in leasing. The unused quota is available to the farmer to lease from the farm the next year with a similar potential for profit as if leased in the same year. The administrator does not believe an undue hardship is placed upon the farmer who receives leased quota because the farmer is permitted to market ten percent over the effective farm marketing quota without having to pay a marketing quota penalty. With this provision a farmer should be able to lease within the limits provided by the rule and yet market his tobacco without a marketing quota penalty.

3. *Comments beyond scope.* Beyond the scope of the proposal were comments:

a. Relating to the price paid for flue-cured tobacco quota when leasing.

b. To prohibit leasing of flue-cured tobacco quota after June 14.

c. Relating to grading and marketing of tobacco.

CHANGES WHICH WERE NOT IN THE NOTICE OF PROPOSED RULEMAKING

This rule includes changes which were not in the notice of proposed rulemaking as follows:

1. The first sentence in § 725.50 is amended to make a minor correction required by the previous addition of a new § 725.116 (42 FR 9159).

2. Section 725.72(c) (3) (ii) is amended to provide that if the effective farm marketing quota for a transferring farm exceeds 2,000 pounds a transfer may not be approved unless the transferring farm and the operator of the receiving farm each have planted at least 50 percent of the allotment that was in effect for their respective farm prior to June 15. Previously a transfer could be approved if the "farm marketing quota" (basic quota) did not exceed 2,000 pounds even though the "effective farm marketing quota" exceeded 2,000 pounds. This permitted a farmer to speculate on leasing by transferring large amounts of quota to a farm prior to June 15, planting no tobacco on the farm, and transferring the quota from the farm after June 14 at a price greater than initially was paid for the quota. This change is made to stop this practice.

3. Section 725.87(f) is amended to provide that if the estimated pounds of tobacco on hand from a farm are less than the effective farm marketing quota the county committee may consider the estimated pounds as the effective farm marketing quota for purposes of issuing a marketing card even though quota may be transferred from the farm by the provisions of § 725.72. Previously an exception applied to a farmer who was eligible to transfer quota because the total effective farm marketing quota was needed in order to transfer quota at a market town location. The current rule requires the farmer to file all transfers of quota at the county ASCS office of the county in which the farm is located for administrative purposes.

The amendment to the regulations is as follows:

1. The table of contents is amended by revoking and reserving § 725.61, as follows:

Sec.

* * * * *

725.61 [Reserved]

* * * * *

§ 725.50 [Amended]

2. In § 725.50 the first sentence is amended by substituting the words "this subpart" in lieu of the words "§ 725.50 through 725.115".

3. Section 725.53 is amended to read as follows:

§ 725.53 Extent of determinations, computations, and rule for rounding fractions.

(a) *General.* All prescribed rounding shall be according to the provisions of Part 793 of this chapter.

(b) *Allotments.* Farm acreage allotments shall be determined in hundredths of an acre.

(c) *Yields.* Yields shall be determined in whole pounds.

(d) *Percentage reduction for violation.* A percentage reduction in an allotment for violation of this part shall be determined in tenths of a percent.

§ 725.61 [Reserved]

4. Section 725.61 is revoked and reserved.

§ 725.66 [Amended]

5. In § 725.66, paragraph (b) is amended by deleting the words "as determined under Part 718 of this chapter" from the first sentence and paragraph (c) is revoked and reserved.

§ 725.68 [Amended]

6. In Section 725.68, paragraph (d) is amended by substituting the words "established and publicized by the State committee" in lieu of the words "specified in Part 731 of this chapter" at both places these words are used in the paragraph.

7. In § 725.72 paragraphs (c) (3) and (l) are amended to read as follows:

§ 725.72 Lease and transfer of tobacco marketing quotas.

* * * * *

(c) * * *

(3) * * *

(ii) Not be made if the effective farm * * *.

(iii) * * *

(iv) Not be made if the pounds of quota to be transferred from the lessor farm exceed the results obtained when the reported (or determined) acreage of tobacco in the lessor farm is multiplied by the farm yield (§ 725.51(o)) for the farm and the product is reduced by the total pounds of tobacco marketed and/or available for marketing (based on estimated pounds of tobacco on hand and/or in process of being produced) from the farm in the current year.

(v) Not be made if the pounds of quota to be transferred to the lessee farm exceed the difference obtained by subtracting the effective farm marketing quota (the quota prior to the filing of the transfer agreement) for the lessee farm from the total pounds of tobacco marketed and/or available for marketing (based on estimated pounds of tobacco on hand and/or in process of being produced) from the farm in the current year.

* * * * *

(l) *Effective of transfer on price support eligibility and allotment reductions for a violation.* The effective farm acreage allotment and effective farm marketing quota prior to approval of a transfer of quota will be used in determining:

(1) Eligibility of the farm for price support if the transfer agreement was filed after the farm operator reported the acreage of tobacco on the farm.

(2) The percentage of reduction in a farm acreage allotment for a violation of the regulations in this subpart if the violation takes place prior to approval of the transfer.

* * * * *

(8) In § 725.87, paragraph (f) is amended by deleting the words "and the quota is not eligible to be transferred from the farm under the provisions of § 725.72," from the first sentence, paragraph (d) is amended, and paragraph (g) is added to read:

§ 725.87 Issuance of marketing cards.

* * * * *

(d) *Farms not eligible for price support.* The marketing card issued for a farm shall have the notation "No Price Support" when the farm does not qualify for price support eligibility under the provisions of Part 1464 of this chapter.

* * * * *

(g) *Marketing cards for producers of registered or certified flue-cured tobacco seed.* Producers of registered or certified flue-cured tobacco seed may devote flue-cured tobacco acreage to seed production without such tobacco affecting the

farm's eligibility for price support if an agreement is signed by the farm operator, and the producer if different from the operator, which provides:

(1) For the destruction prior to harvest of all tobacco produced on the acreage designated for seed production.

(2) That the producers shall pay the cost of compliance visits to a farm by representatives of the county committee for the purposes of (i) designating and determining the acreage for seed production and (ii) determining that no tobacco has been harvested from the acreage designated for seed production and to witness destruction of the tobacco leaves.

(3) That the producer(s) signing the agreement shall agree to timely notify the county office when the tobacco seed have been harvested.

(4) That the planting of the tobacco acreage for seed production will not create history acreage for the purpose of establishing future farm allotments.

(5) That if the county committee determines that any of the terms and conditions of the agreement have been violated or any material misrepresentation has been made, any marketing card issued for the farm in recognition of the agreement shall be recalled and canceled, and a marketing card shall be issued to reflect that the tobacco produced on the farm is not eligible for price support.

* * * * *

§ 725.95 [Amended]

9. Section 725.95 is amended by deleting the period at the end of the first sentence in paragraph (b) and adding the following: "plus the amount determined by multiplying the farm yield times the number of acres harvested in excess of the effective farm acreage allotment.".

§ 725.98 [Amended]

10. In § 725.98, paragraph (a) is amended by deleting the words "in a certification county (as defined in Part 718 of this chapter)" in the second sentence.

11. Section 725.99 is amended by revoking and reserving subparagraph (a)(4)(v), by deleting the first two sentences following subparagraph (a)(4)(xvii) and by revising subparagraph (a)(8) and paragraph (k) to read as follows:

§ 725.99 Warehouseman's records and reports.

* * * * *

(a) * * *

(8) *Nonquota tobacco or quota tobacco of a different kind.* Should tobacco be presented for sale that is represented to be nonquota tobacco or should there be a question as to what kind of quota tobacco is being offered, an inspection shall be obtained from the Agricultural Marketing Service of this Department (AMS) after the tobacco is weighed and in line for sale. The basket ticket for the tobacco shall be cross-referenced to the sale bill by sale bill number and date. The sale bill shall show the producer's name and address and the State and county code and farm number of the farm on which the tobacco was produced. If an AMS inspection shows that a basket or lot of tobacco is of a different kind than that identified by the basket ticket after it is weighed in and a sale bill prepared, such tobacco shall be deleted from the original sale bill and a revised sale bill prepared. Copies of the basket ticket and sale bill shall be furnished to the State office at the end of the sale day.

* * * * *

(k) *Basket, or sheet identification and cross-referencing between tobacco sale bill, basket ticket, and bill to buyer.* Each warehouseman shall record the weight of each basket or sheet of tobacco on the tobacco sale bill and the basket ticket at the time the tobacco is weighed for marketing. The sale bill number shall be recorded on the basket ticket which is prepared for the tobacco. When the tobacco has been sold at auction, the bill-out invoice to the buyer shall include the warehouse registration number (warehouse code) and the sale bill number and line number of the entry on the sale bill.

* * * * *

12. In § 725.100, paragraphs (b)(1)(ii), (c)(3), and (f)(1) are amended to read as follows:

§ 725.100 Dealer's records and reports.

* * * * *

(b) * * *

(1) * * *

(ii) In addition a Form MQ–72–2, Report of Tobacco Nonauction purchase, shall be prepared and shall show: (A) Date of purchase, (B) identification number of buyer, (C) identification or producer selling the tobacco as shown on the marketing card, including his name and address and complete farm number, (D) type code 10, (E) pounds purchased, (F) amount of penalty collected, (G) the signature of the seller, and (H) whether the pounds marketed were determined by weighing or by estimating. Each nonauction purchase of tobacco made by the dealer shall be recorded on MQ–79.

* * * * *

(c) * * *

(3) The date to be entered on MQ–72–2, Report of Tobacco Nonauction Purchase, for nonauction purchases from a producer shall be that enumerated under paragraph (b)(1)(ii) of this section. For nonauction purchases from a dealer, the data to be entered on MQ–72–2 shall be the following: (i) Date of purchase; (ii) identification number of buyer; (iii) identification number of dealer making the sale; (iv) type code 10, (v) pounds purchased; (vi) signature of seller; and (vii) whether the pounds marketed were determined by weighing or by estimating.

* * * * *

(f) * * *

(1) Execute a basket ticket on which shall be imprinted the type of designation for the kind of quota tobacco normally marketed in the area which shows: (i) the weight of the tobacco in the basket or sheet, (ii) the sale bill number and line number of the sale bill on which the basket or sheet of tobacco is recorded;

* * * * *

(Sec. 301, 313, 314, 316, 317, 363, 372–375, 377, 378, 52 Stat. 38, as amended, 47, as amended, 48, as amended, 75 Stat. 469, as amended, 79 Stat. 66, 52 Stat. 63, as amended, 65–66, as amended, 72 Stat. 995; section 401, 63 Stat. 1054, as amended, sections 106, 122, 125, 70 Stat. 191, 195, 198, as amended, section 16(e), 76 Stat. 606; (7 U.S.C. 1301, 1313, 1314, 1314b, 1314c, 1363, 1372–1375, 1377, 1378, 1421, 1813, 1824, 1836), (16 U.S.C. 590p(e)).)

Signed at Washington, D.C., on May 20, 1977.

VICTOR A. SENECHAL,
Acting Administrator, Agricultural Stabilization and Conservation Service.

[FR Doc.77-15317 Filed 5-27-77;8:45 am]

CHAPTER IX—AGRICULTURAL MARKETING SERVICE (MARKETING AGREEMENTS AND ORDERS; FRUITS, VEGETABLES, NUTS), DEPARTMENT OF AGRICULTURE

PART 923—SWEET CHERRIES GROWN IN DESIGNATED COUNTIES IN WASHINGTON

Suspension of Regulations for Certain Varieties of Cherries

AGENCY: Agricultural Marketing Service.

ACTION: Final rule.

SUMMARY: This rule suspends the grade, size, and container regulations on cherries of the Rainier and Royal Anne and other similar varieties commonly referred to as "light sweet cherries," imposed under the marketing agreement and order. The quantities of these varieties of cherries shipped in the fresh market is minimal, therefore, it is not necessary that these varieties be regulated in order to effectuate the declared policy of the act.

EFFECTIVE DATE: June 1, 1977.

FOR FURTHER INFORMATION CONTACT:

Charles R. Brader, Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250 (202–447–3545).

SUPPLEMENTARY INFORMATION: (a) *Findings.* (1) Pursuant to § 923.53 of the marketing agreement and Order No. 923 (7 CFR Part 923), regulating the handling of sweet cherries grown in designated counties in Washington, effective under the Agricultural Marketing Agreement Act of 1937, as amended, (7 U.S.C. 601–674), and on the basis of the recommendation of the Washington Cherry Marketing Committee established under the order, and other available information, it is found that this action will tend to effectuate the declared policy of the act.

(2) It is further found that it is impracticable and contrary to the public

interest to give preliminary notice, engage in public rulemaking procedure and postpone the effective date of this action until 30 days after publication in the FEDERAL REGISTER (5 U.S.C. 553) in that: Some shipments of these varieties of cherries may be made by June 1, 1977, and this suspension from requirements should apply to those shipments; and this action relieves restrictions on the handling of certain varieties of cherries, thus, handlers require no additional time or preparation to comply. Therefore, § 923.315 (a) and (b) (41 FR 26851) are revised to read as follows:

§ 923.315 Cherry Regulation 15.

Order. (a) *Grade and sizes.* During the period July 1, 1976, through June 30, 1977, no handler shall handle, except as otherwise provided in paragraphs (b) and (c) of this section, any lot of cherries, except cherries of the Rainier, Royal Anne, and similar varieties commonly referred to as "light sweet cherries," unless such cherries meet each of the following applicable requirements:

* * * * *

(b) *Containers.* During the period July 1, 1976, through June 30, 1977, no handler shall handle any lot of cherries, except cherries of the Rainier, Royal Anne, and similar varieties commonly referred to as "light sweet cherries," unless such cherries are in containers which meet each of the following applicable requirements:

* * * * *

(Secs. 1–19, 48 Stat. 31, as amended (7 U.S.C. 601–674).)

Dated May 24, 1977, to become effective June 1, 1977.

CHARLES R. BRADER,
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc.77-15318 Filed 5-27-77;8:45 am]

[Valencia Orange Reg. 556, Amdt. 1]

PART 908—VALENCIA ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

Limitation of Handling

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Amendment to final rule.

SUMMARY: This amendment increases the quantity of California-Arizona Valencia oranges that may be shipped to fresh market during the weekly regulation period May 20–26, 1977. The amendment recognizes that demand for Valencia oranges has improved, since the regulation was issued. This action will increase the supply of oranges available to consumers.

DATES: Weekly regulation period May 20–26, 1977.

FOR FURTHER INFORMATION CONTACT:

Charles R. Brader, Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250 (202–447–3545).

SUPPLEMENTARY INFORMATION: (a) *Findings.* (1) Pursuant to the amended marketing agreement and Order No. 908, as amended (7 CFR Part 908), regulating the handling of Valencia oranges grown in Arizona and designated part of California, effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), and upon the basis of recommendations and information submitted by the Valencia Orange Administrative Committee, established under the marketing agreement and order, and other available information, it is found that the limitation of handling of Valencia oranges as provided in this amendment will tend to effectuate the declared policy of the act.

(2) Demand in the Valencia orange markets has improved since the regulation was issued. Amendment of the regulation is necessary to permit orange handlers to ship a larger quantity of Valencia oranges to market to supply the increased demand. The amendment will increase the quantity permitted to be shipped by 150,000 cartons, in the interest of producers and consumers.

(3) It is further found that it is impracticable and is contrary to the public interest to give preliminary notice, engage in public rulemaking procedure, and postpone the effective date of this amendment until 30 days after publication in the FEDERAL REGISTER (5 U.S.C. 553), because the time intervening between the date when information became available upon which this amendment is based and the time when this amendment must become effective in order to effectuate the declared policy of the act is insufficient, and this amendment relieves restrictions on the handling of Valencia oranges.

(b) *Order, as amended.* The provisions in paragraph (b)(1) (i) and (ii) of § 908.856 Valencia Orange Regulation 556 (42 FR 25719) are hereby amended to read as follows:

§ 908.856 Valencia Orange Reg. 556.

* * * * *

(b) * * *

(1) * * *

(i) District 1: 348,000 cartons;

(ii) District 2: 502,000 cartons.

* * * * *

(Secs. 1–19, 48 Stat. 31 as amended (7 U.S.C. 601–674).)

CHARLES R. BRADER,
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc.77-15405 Filed 5-27-77;8:45 am]

[Lemon Reg. 93, Amdt. 1]

PART 910—LEMONS GROWN IN CALIFORNIA AND ARIZONA

Limitation of Handling

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Amendment to final rule.

SUMMARY: This amendment increases the quantity of California-Arizona lemons that may be shipped to fresh market during the weekly regulation period May 22–28, 1977. The amendment recognizes that demand for lemons has improved, since the regulation was issued. This action will increase the supply of lemons available to consumers.

DATES: Weekly regulation period May 22–28, 1977.

FOR FURTHER INFORMATION CONTACT:

Charles R. Brader, Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250 (202–447–3545).

SUPPLEMENTARY INFORMATION: (a) *Findings.* (1) Pursuant to the amended marketing agreement and Order No. 910, as amended (7 CFR Part 910), regulating the handling of lemons grown in California and Arizona, effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), and upon the basis of recommendations and information submitted by the Lemon Administrative Committee, established under the marketing agreement and order, and other available information, it is found that the limitation of handling of lemons, as provided in this amendment will tend to effectuate the declared policy of the act.

(2) Demand in the lemon markets has improved since the regulation was issued. Amendment of the regulation is necessary to permit lemon handlers to ship a larger quantity of lemons to market to supply the increased demand. The amendment will increase the quantity permitted to be shipped by 25,000 cartons, in the interest of producers and consumers.

(3) It is further found that it is impracticable and is contrary to the public interest to give preliminary notice, engage in public rulemaking procedure, and postpone the effective date of this amendment until 30 days after publication in the FEDERAL REGISTER (5 U.S.C. 553), because the time intervening between the date when information upon which this amendment is based became available and the time when this amendment must become effective in order to effectuate the declared policy of the act is insufficient, and this amendment relieves restrictions on the handling of lemons.

(b) *Order, as amended.* Paragraph (b)(1) of § 910.393 Lemon Regulation

93 (42 FR 25849) is amended to read as follows: "The quantity of lemons grown in California and Arizona which may be handled during the period May 22, 1977, through May 28, 1977, is established at 335,000 cartons."

(Secs. 1-19, 48 Stat. 31, as amended (7 U.S.C. 601-674).)

Dated: May 25, 1977.

CHARLES R. BRADER,
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc.77-15406 Filed 5-27-77;8:45 am]

CHAPTER XI—AGRICULTURAL MARKETING SERVICE (MARKETING AGREEMENTS AND ORDERS: MISCELLANEOUS COMMODITIES) DEPARTMENT OF AGRICULTURE

PART 1260—BEEF RESEARCH AND INFORMATION

Subpart—Procedure for the Conduct of Referendums in Connection With Beef Research and Information Order

AGENCIES: Agricultural Marketing Service and Agricultural Stabilization and Conservation Service, USDA.

ACTION: Notice of Producer Referendum.

SUMMARY: This document announces a referendum among cattle producers to determine whether they approve issuance of an order establishing a program of research and information for cattle, beef, and beef products. The Secretary of Agriculture on April 15, 1977, announced a decision to issue such an order. Under the Beef Research and Information Act, an order becomes effective only if it is approved by cattle producers who vote in a referendum for producers. This notice announces the representative period of cattle ownership to be eligible to register and vote; the registration and voting periods; and the place to register and vote.

DATES: Registration, June 6 through June 17, 1977. Voting, July 4 through July 15, 1977. Representative period of ownership of cattle for determining eligibility of producers to vote, January 1 through December 31, 1976.

FOR FURTHER INFORMATION CONTACT:

Robert Cook, Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture, Room 3639 South Building, Washington, D.C. 20250 (202) 447-7997.

SUPPLEMENTARY INFORMATION: A decision by the Secretary of Agriculture to issue a beef research and information order establishing a program of research and information for cattle, beef, and beef products as authorized by the Beef Research and Information Act (7 CFR 2901 et seq.) was published in the FEDERAL REGISTER on April 15, 1977 (42 FR 19865). As required by Section 9 of the Act, the Order will become effective only if approved by cattle producers who vote in a referendum. For approval, ballots must be cast by at least 50 percent of the producers registering to vote in the referendum and not less than two-thirds of those voting must favor or approve issuance of the Order.

Notice is hereby given of a referendum to determine whether cattle producers approve the Order issued by the Secretary of Agriculture on April 15. The registration period will be June 6 through June 17, 1977. The voting period will be July 4 through July 15, 1977. The representative period of ownership of cattle to determine the eligibility of producers to register and vote in the referendum is January 1 through December 31, 1976. Registration and voting will be conducted through county offices of the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture.

Issued at Washington, D.C. this 25th day of May, 1977.

VICTOR A. SENECHAL,
Acting Administrator, Agricultural Stabilization and Conservation Service.

WILLIAM T. MANLEY,
Acting Administrator, Agricultural Marketing Service.

[FR Doc.77-15410 Filed 5-27-77;8:45 am]

CHAPTER XIV—COMMODITY CREDIT CORPORATION, DEPARTMENT OF AGRICULTURE

SUBCHAPTER C—EXPORT PROGRAMS

[Amdt. 1]

PART 1488—FINANCING OF SALES OF AGRICULTURAL COMMODITIES

Subpart A—Financing of Export Sales of Agricultural Commodities From Private Stocks Under CCC Export Credit Sales Program (GSM-5)

MISCELLANEOUS AMENDMENTS

AGENCY: Commodity Credit Corporation, Department of Agriculture.

ACTION: Final rule.

SUMMARY: In response to questions raised by several participants in the CCC Export Credit Sales Program (7 CFR Part 1488), these amendments clarify the regulations with respect to the U.S. bank's liability with regard to risk for payment of bank obligations confirmed by them. Also, these amendments make a minor editorial change concerning additional documents which CCC may require from exporters. These changes will better inform participants as to program requirements.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

L. T. McElvain, Commercial Export Programs, Office of the General Sales Manager, U.S. Department of Agriculture, 14th Street and Independence Ave. SW., Washington, D.C. 20250, telephone 202-447-3224.

SUPPLEMENTARY INFORMATION: Since the amendments are primarily for clarification of the regulations and in view of the urgent need for such clarification, it is hereby found and determined that compliance with the procedure for notice of proposed rulemaking and public participation is unnecessary. Therefore, these amendments are issued without compliance with such procedure.

RULE

Accordingly, Part 1488 of 7 CFR containing the terms and conditions of the CCC Export Credit Sales Program regulations (GSM-5) (42 FR 10999, corrected at 42 FR 13535 and 42 FR 13561) is hereby amended as follows:

§ 1488.8 [Amended]

1. In § 1488.8, paragraph (a) is amended by adding after the words "in paragraphs (b) through (e) of this section" the words "and any documentation and certifications required by any supplements to these regulations."

2. In § 1488.8, paragraph (f) is amended by adding before the comma appearing after the words "in paragraphs (b) through (e) of this section" the words "and any documentation and certifications required by any supplements to these regulations."

3. In § 1488.12, paragraph (a) is amended to read as follows:

§ 1488.12 Coverage of bank obligations.

(a) U.S. banks and branch banks shall be liable without regard to risk (i) for payment of bank obligations issued by them or (ii) for payment of bank obligations confirmed by them if a requirement for such confirmation is included in the financing agreement.

* * * * *

4. In § 1488.12, paragraph (b) is amended by adding "(a)," after the words "as provided in paragraphs".

5. In § 1488.12, paragraph (f) is amended by (i) adding "(a)," in the first sentence after the words "Except as provided in paragraphs" and (ii) adding the words, "except as provided in paragraph (a)(ii)," in the third sentence after the words "For the confirmed amount,".

§ 1488.13 [Amended]

6. In § 1488.13, the fifth sentence is amended by adding "(a)," after the words "except as provided in § 1488.12".

§ 1488.14 [Amended]

7. In § 1488.14, the third sentence is amended by adding after the words "for which payment is assured by a bank obligation issued" the words "or confirmed for all risks according to § 1488.12 (a)(ii)".

(Sec. 5(f), 62 Stat. 1072 (15 U.S.C. 714c); sec. 4, 80 Stat. 1538 (7 U.S.C. 1707a).)

Signed at Washington, D.C., on May 25, 1977.

GEORGE S. SHANKLIN,
Acting Vice President, Commodity Credit Corporation and Acting General Sales Manager, Office of the General Sales Manager.

[FR Doc.77-15412 Filed 5-27-77;8:45 am]

Title 12—Banks and Banking

CHAPTER II—FEDERAL RESERVE SYSTEM

SUBCHAPTER A—BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

[Reg. Z; FC-0072, FC-0073, FC-0074]

PART 226—TRUTH IN LENDING

Official Staff Interpretations

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Official staff interpretation(s).

SUMMARY: The Board is publishing the following official staff interpretations of Regulation Z, issued by a duly authorized official of the Division of Consumer Affairs.

EFFECTIVE DATE: May 23, 1977.

FOR FURTHER INFORMATION CONTACT:

D. Edwin Schmelzer, Chief, Fair Credit Practices Section, Division of Consumer Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 (202-452-2412).

SUPPLEMENTARY INFORMATION: (1) Identifying details have been deleted to the extent required to prevent a clearly unwarranted invasion of personal privacy. The Board maintains and makes available for public inspection and copying a current index providing identifying information for the public subject to certain limitations stated in 12 CFR 261.6.

(2) Official staff interpretations may be reconsidered upon request of interested parties and in accordance with 12 CFR Part 226.1(d)(2). Every request for reconsideration should clearly identify the number of the official staff interpretation in question, and should be addressed to the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

(3) 15 U.S.C. 1640(f).

12 CFR PART 226, FC-0072

§ 226.13(a) Bank identification card that serves specific substantive purpose and is issued on an unsolicited basis may be converted into credit card after issuance, provided credit capability is attached only after customer has expressly requested such capability. Card need not be returned for re-encoding; necessary computer programming can take place at bank operations center.

MAY 3, 1977.

This is in response to your letter of * * *, in which you request an official staff interpretation of Regulation Z.

Your inquiry relates to § 226.13(a) and involves a variation of the facts on which official staff interpretation FC-0041 was based. Interpretation FC-0041 provides that the return and re-encoding of an existing check identification card (issued on an unsolicited basis with no credit privileges attached) is an acceptable manner of complying with § 226.13(a) of the regulation. By such re-encoding, which occurs only on the customer's specific request for attachment of credit privileges to a card, a check identification card is converted into a credit card.

You state that your bank's check identification card serves a specific substantive purpose other than to provide credit (namely, to access the customer's checking or savings account funds through automatic tellers or electronic terminals) at the time it is issued to a customer on an unsolicited basis. Withdrawals are limited to the balance in the customer's deposit account unless the customer has executed a specific written request for attachment of credit privileges to the card. Thus, only customers who have expressly requested attachment of such privileges are able to use a check identification card as a credit card.

The difference between your bank's system and the one described in FC-0041 is that under your system no additional encoding of a card is required. Whenever a customer requests credit capability on a card the necessary computer programming takes place at the bank operations center.

It is staff's opinion that the dictates of § 226.13(a) are satisfied so long as credit capability is attached to a card which is usable for a specific substantive purpose other than obtaining credit only after a customer has expressly requested that such capability be attached. In staff's opinion, therefore, the method contemplated by your bank for issuing the cards would not be an unsolicited issuance of a credit card under Regulation Z.

This is an official staff interpretation of Regulation Z, issued in accordance with § 226.1(d)(3) of the regulation and limited in its application to the facts outlined above. I trust it is responsive to your inquiry.

Sincerely,

JERAULD C. KLUCKMAN,
Associate Director.

12 CFR PART 226, FC-0073

§ 226.4(a)(6) Creditor may exclude cost of VSI insurance from finance charge by complying with § 226.4(a)(6) even though creditor has knowledge that insurance is unavailable to customers on an individual basis.

MAY 4, 1977.

This is in response to your request of * * *, for an official staff interpretation of Regulation Z with respect to the treatment of vendor's single interest (VSI) insurance premiums under § 226.4(a)(6). Your client, in connection with its financing of automobile purchases, requires that VSI insurance coverage be obtained. The relevant portion of the disclosure regarding this insurance is as follows:

Purchaser may choose person through whom required insurance is to be obtained.

Vendor's single interest insurance is available at a cost of $_____ for the term of the contract.

The insurer waives rights of subrogation.

You state that your client, in accordance with § 226.4(a)(6), reflects the VSI premium, when financed, as a separate component of the amount financed and excludes the same from the finance charge.

It has recently come to the attention of your client that, as a practical matter, such coverage generally is unavailable to individual customers from licensed insurance companies in the State. Your client is unaware of the precise reason for the unavailability of such coverage.

You inquire whether your client may continue to exclude the VSI insurance premium from the finance charge by complying with § 226.4(a)(6) with respect to providing a written statement to the effect that it is permissible for the customer to procure the VSI insurance from or through an entity other than the creditor.

It is the staff's opinion that your client may continue to exclude the cost of the VSI insurance premium from the finance charge by disclosing that the customer may choose the person through which the insurance is to be obtained in addition to disclosing the cost, if the insurance is procured from or through the creditor. Your client's subjective knowledge of the availability of individual VSI insurance coverage need not be the factor which determines the treatment of the premium amount for disclosure purposes; that knowledge may be incomplete and the customer may, in fact, be able to obtain VSI insurance from a source unknown to your client. While it may be true that such insurance is generally unavailable to individual customers at the present time, there is no requirement in the regulation that such insurance coverage actually be available from persons other than the creditor in order to exclude the premium amount from the finance charge.

This is an official staff interpretation of Regulation Z, issued in accordance with § 226.1(d) of Regulation Z and limited to the facts outlined herein. It appears that your client may be a creditor subject to the law of the State of Connecticut and not the Federal law. Since that State has been granted an exemption under the relevant portion of the Truth in Lending Act, you may wish to contact the office of Mr. Lawrence Connell, Jr., the State Bank Commissioner, for his views.

Sincerely,

JERAULD C. KLUCKMAN,
Associate Director.

12 CFR PART 226, FC-0074

§ 226.2(s) Seller that is a creditor as to one account is not a creditor as to another account that does not involve the use of a credit card and is neither subject to a finance charge nor payable in more than four instalments.

MAY 4, 1977.

This will respond to your letter of * * *, in which you request an official staff interpretation of § 226.2(s) of Regulation Z.

Your client, a retail seller, offers two separate types of credit accounts: a revolving open end account to which a finance charge is applied, and a single purchase contract account which does not involve the use of a credit card, imposition of a finance charge, or payment by agreement in more than four instalments. You ask whether, if a retailer is a "creditor" in connection with the first account, it is a creditor whenever it extends "credit" as defined in § 226.2(q).

Section 226.2(s) defines a "creditor" as: A person who in the ordinary course of business regularly extends * * * consumer credit * * * which is payable by agreement in more than four instalments, or for which the payment of a finance charge is or may be required.

Although the above quoted terminology may provide the basis for an argument to the effect that one who extends credit of the type described in the ordinary course of business becomes a creditor whenever "credit" of any type is extended, the staff believes a more limited coverage is intended by the definition. Even though a seller is a creditor under the terms of one purchasing or loan arrangement, it is not necessary to make disclosures under the regulation when sales are made on an account that does not involve the use of a credit card, and that is neither subject to a finance charge nor payable by agreement in more than four instalments. As to those accounts which do not involve these elements the seller is not a creditor for purposes of regulation Z.

This is an official staff interpretation of Regulation Z, issued in accordance with § 226.1(d)(3) of the regulation. The interpretation relates solely to the issues addressed herein. I note that your client is a creditor subject to the laws of the State of Connecticut and not the Federal law. Since that State has been granted a limited exemption under the Truth in Lending Act, I sug-

gest that you contact the office of Mr. Lawrence Connell, Jr., Bank Commissioner of the State of Connecticut, for his views.

We hope our response has been helpful. If you have further questions, please do not hesitate to contact us.

Sincerely,

JERAULD C. KLUCKMAN,
Associate Director.

Board of Governors of the Federal Reserve System, May 20, 1977.

THEODORE E. ALLISON,
Secretary of the Board.

[FR Doc.77-15286 Filed 5-27-77;8:45 am]

Title 14—Aeronautics and Space

CHAPTER I—FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. 76-EA-67; Amdt. 39-2887]

PART 39—AIRWORTHINESS DIRECTIVES

Canadair Aircraft

Correction

In FR Doc. 77-14115 appearing at page 25722 in the issue for Thursday, May 19, 1977, in the second line of the text of the airworthiness directive, first column, page 25723, "Serial Numbers 1001 and 1043" should read "Serial Numbers 1001 to 1043".

[Docket No. 77-WE-15-AD, Amdt. 39-2911]

PART 39—AIRWORTHINESS DIRECTIVES

McDonnell Douglas Company Model DC-10 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: An emergency airworthiness directive (AD) was issued on May 6, 1977, as a result of an uncontained compressor disc failure, in AiResearch auxiliary power units (APU). This AD prohibits in-flight operation of the APU installed in DC-10 aircraft to minimize the potential hazard of such failures.

DATES: Effective date: June 3, 1977, for all persons except those to whom it was made effective by telegram dated May 7, 1977.

FOR FURTHER INFORMATION CONTACT:

Wallace M. Frei, Executive Secretary, Airworthiness Directive Review Board, Federal Aviation Administration, Western Region, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009, telephone 213-536-6351; or Richard G. Wittry, Attorney, Office of the Regional Counsel, Federal Aviation Administration, Western Region, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009, telephone 213-536-6274.

SUPPLEMENTARY INFORMATION: This AD is required because of uncontained separation of the compressor first stage disc of the AiResearch Model TSCP700 Series APU's installed in these aircraft. In at least one case, failure of this part in an APU installed in a similar installation resulted in the compressor assembly becoming unstacked and the second stage compressor disc was ejected through the APU compartment and released from the aircraft. Primary cause of the failure of the first stage disc appears to be low cycle fatigue. Since this problem could affect other APU's of the same type, the agency has determined that aircraft operating limitations are necessary and is requiring installation of a placard and incorporation of an airplane flight manual limitation prohibiting in-flight operation of the APU or equivalent changes approved by the Chief, Aircraft Engineering Division, FAA Western Region.

The principal authors of this document are John A. Kenworthy, Aircraft Engineering Division, and Richard G. Wittry, Attorney, Office of the Regional Counsel.

Since it was found that immediate corrective action was required notice and public procedure thereon was impracticable and contrary to the public interest and good cause existed for making the airworthiness directive effective immediately as to all known U.S. operators of airplanes by individual telegrams dated May 7, 1977. These conditions still exist and the airworthiness directive is hereby published in the FEDERAL REGISTER as an amendment to § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective as to all persons.

MCDONNELL DOUGLAS: Applies to DC-10-10, -10F, -30, -30F, and -40 Series airplanes, certificated in all categories, equipped with AiResearch Model TSCP700 Series APU's.

To prevent secondary damage to the aircraft during flight, due to compressor disc failure, accomplish the following:

(a) Immediately upon receipt of this telegram, advise flight crews by the most practicable means, of the action required by (b).

(b) Within seven days after the effective date of this AD, unless already accomplished, install a placard, at the flight engineer station, containing the following information: "Do not operate the APU in-flight".

(c) Within sixty days after the effective date of this AD, unless already accomplished, incorporate the following limitation in the appropriate FAA approved airplane flight manual (AFM), under the heading APU in the limitations section, reports MDC-J1010, MDC-J1030, MDC-J5830, MDC-J1040, or MDC-J2140: "Do not operate the APU in-flight".

(d) Equivalent placards and revised AFM pages, may be used when approved by the Chief, Aircraft Engineering Division, FAA Western Region.

This amendment is effective June 3, 1977, for all persons except those to whom it was made effective by telegram dated May 7, 1977, which contained this amendment.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421, 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

NOTE.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Los Angeles, Calif. on May 19, 1977.

M. C. BEARD,
Acting Director,
FAA Western Region.

[FR Doc.77-15295 Filed 5-27-77;8:45 am]

[Docket No. 15694, Amdt. 39-2912]

PART 39—AIRWORTHINESS DIRECTIVES

Messerschmitt-Bolkow-Blohm (MBB) Model BO-105 Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adds a new airworthiness directive (AD) which requires periodic inspections and the replacement, as necessary, of the quadruple nuts and associated bolts on the main rotor hub of MBB Model BO-105 helicopters, to preclude the possible loss of the main rotor due to cracks.

DATES: Effective—June 14, 1977. Compliance schedule—As prescribed in the body of the AD.

ADDRESSES: The referenced service bulletin may be obtained from Messerschmitt-Bolkow-Blohm GmbH, Helicopter Division, 8000 Munchen-Ottobrunn, Federal Republic of Germany or Boeing Vertol Company, Mail Stop P31-69, P.O. Box 16858, Philadelphia, Pennsylvania, 19142, telephone (215) 522-2755.

A copy of the service bulletin is contained in the rules docket for this amendment in Rm. 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

FOR FURTHER INFORMATION CONTACT:

M. E. Gaydos, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Region, Federal Aviation Administration, c/o American Embassy, Brussels, Belgium, Telephone 513.38.30.

SUPPLEMENTARY INFORMATION: A notice proposing to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive applicable to MBB Model BO-105 helicopters was published in the FEDERAL REGISTER at 41 FR 18683. The notice proposed to require periodic inspections and the replacement, as necessary, of the quadruple nuts and associated bolts on the main rotor hub to preclude the possible loss of a rotor due to cracks in the nuts or bolts.

Interested persons have been afforded an opportunity to participate in the making of the amendment. No objections were received. Accordingly, the proposal is adopted without change.

The principal authors of this document are Mr. M. E. Gaydos, Europe, Africa, and Middle East Region, Mr. F. H. Kelley, Flight Standards Service, and Mr. J. D. Jeffrey, Office of the Chief Counsel.

ADOPTION OF AMENDMENT

Accordingly, and pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by adding the following new airworthiness directive:

MESSERSCHMITT-BOLKOW-BLOHM GmbH. Applies to Model BO-105 helicopters, certificated in all categories.

Compliance is required as indicated.

To prevent the possible failure of the main rotor hub quadruple nuts and the consequent loss of the main rotor, accomplish the following:

(a) For main rotor hub quadruple nuts, P/N's 105-14101.19 and 105-14101.20 and associated bolts, P/N's 105-14101.22 and 105-14101.23, with more than 1,400 hours total time in service, within the next 100 hours time in service after the effective date of this AD, unless already accomplished within the last 200 hours time in service, and thereafter at intervals not to exceed 300 hours time in service from the last inspection, remove the quadruple nuts and associated bolts and inspect them for cracks using a magnaflux process, or a FAA-approved equivalent.

(b) If a crack is found in a nut or bolt during any of the inspections required by this AD, before further flight, replace the cracked part with a serviceable part of the same part number. For parts installed as replacements, before the accumulation of 1,500 hours total time in service on the replacement parts and thereafter at intervals not to exceed 300 hours time in service from the last inspection, remove the replacement quadruple nuts and associated bolts and inspect them for cracks using a magnaflux process or an FAA-approved equivalent.

(c) Before the accumulation of 2,400 hours total time in service on a quadruple nut or bolt specified in paragraph (a) of this AD, replace the quadruple nuts and associated bolts with serviceable nuts and bolts of the same part numbers and comply with paragraphs (a) and (b) of this AD for the replacement parts.

(MBB Service Bulletin No. 10-18 dated July 18, 1975, covers this same subject.)

This amendment becomes effective June 14, 1977.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, as amended, (49 U.S.C. 1354(a), 1421, 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); 14 CFR 11.89.)

NOTE.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Washington, D.C., on May 23, 1977.

J. A. FERRARESE,
Acting Director,
Flight Standards Service.

[FR Doc.77-15296 Filed 5-27-77;8:45 am]

[Docket No. 16257; Amdt. No. 121-134]

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

Additional Weather Information

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment requires that domestic and flag air carriers adopt an approved system for obtaining forecasts and reports of adverse weather conditions that may affect safety of a flight while en route and at each airport to be used. Prior to a flight, the aircraft dispatcher would be required to provide the pilot in command with all available weather reports and forecasts of weather conditions for each route to be flown and each airport to be used. During a flight, the aircraft dispatcher would be required to provide the pilot in command with any additional available information of meteorological conditions that may affect safety of the flight. The intended effect of this amendment is to reduce the number of accidents resulting from adverse weather. These changes are needed because a review of recent aircraft accidents indicates that hazardous weather conditions remain a serious threat to air safety.

DATES: Amendment is effective June 30, 1977, but a compliance date of December 31, 1977, is established.

FOR FURTHER INFORMATION CONTACT:

Mr. Raymond E. Ramakis, Regulatory Projects Branch, Safety Regulations Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, D.C. 20591; telephone (202) 755-8716.

SUPPLEMENTARY INFORMATION:

HISTORY

This amendment is based on a notice of proposed rule making (Notice No. 76-23) published in the FEDERAL REGISTER on November 15, 1976 (41 FR 50275). That notice invited comments by all persons interested in the making of the proposed rule. All interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all matters presented. Seventy-eight commentators responded to Notice 76-23. Except for minor editorial revisions, and as specifically discussed hereinafter, this amendment and the reasons therefor are the same as those in Notice 76-23.

DISCUSSION OF COMMENTS

One commentator disagreed with the proposal. Several commentators, while agreeing with the intent of the proposal, recommended that certain changes be accomplished. The majority of the comments supported the proposal without qualification.

It was noted that the proposal for an approved system for obtaining forecasts and reports of adverse weather phenomena did not include any guidelines regarding the details of a system which will be acceptable to the Administrator. Guidelines were intentionally omitted from the proposed regulation in order to provide flexibility to a certificate holder in developing a system for its particular operation. However, the FAA is developing an advisory circular that will be of assistance to certificate holders in developing their systems.

One commentator expressed concern that proposed § 121.601(c) is not limited to information of meteorological conditions which may affect safety of flight. Therefore, according to the commentator, the pilot in command would be deluged with unnecessary weather information and, consequently, safety of flight could be adversely affected. It was not intended that the pilot in command be furnished unnecessary information and proposed § 121.601(c) has been revised to make it clear that only that information which may affect safety of flight must be furnished to the pilot in command.

One commentator contended that there is no need for a regulatory change to require a system for reporting adverse weather because each domestic and flag air carrier presently has such a system. In conjunction with this comment it was argued that there is no need for FAA approval of the system. Current regulations do not explicitly require the certificate holders to use a system having the capability proposed in Notice 76-23. In the FAA's opinion, that system and the changes proposed in § 121.601 are necessary to ensure that the pilot in command will be furnished information concerning adverse weather that may affect safety of flight. FAA approval of the system is necessary in order to ensure that the system is satisfactory before it is used under operational conditions.

It was suggested that operations within the State of Hawaii be excluded from the requirement for the system in § 121.101(d) because of the generally favorable weather conditions which exist in the Hawaiian Islands and the unique nature of the operations there. The FAA does not agree with this suggestion because experience establishes that adverse

weather phenomena, including clear air turbulence, thunderstorms, and low altitude wind shear can occur in the State of Hawaii. Any special characteristics of operations in Hawaii will be considered by the Administrator in reviewing for approval systems developed by certificate holders.

One comment urged that the tower and approach control facilities, not the certificate holder, should have the responsibility of providing weather reports to aircraft in terminal areas. The FAA does not agree with this comment. The FAA believes that the certificate holder, not the tower and approach control facilities, should have the primary responsibility for providing weather reports to aircraft in terminal areas. Consequently, it would not be appropriate for persons not under the control of the certificate holder to have the responsibility of relaying weather information to the certificate holder's flights.

It was pointed out that at the present time the National Weather Service does not provide routine forecasts of low-level wind shear and, consequently, some dispatch departments do not provide such forecasts to flight crews. Even if the National Weather Service does not implement procedures to provide routine forecasts of low-level wind shear, the FAA believes that, with minimal costs, certificate holders can develop other acceptable sources for that information. In this respect, it should be noted that at least one certificate holder has develop a workable system for gathering and disseminating such information.

Two commentators expressed concern with the FAA's conclusion that Notice 76-23 did not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107. However, neither commentator offered any data concerning economic impact. The FAA believes that its conclusion was correct. In addition, while some certificate holders may find it necessary to incur some expenses in achieving compliance with the new rules, the FAA believes that the expenses of compliance are more than offset by the enhancement of safety which the FAA believes will result from the rules.

Various other comments and suggestions were received that proposed regulatory changes which would exceed the proposals in the notice. They included:

(1) Extend the proposal to include supplemental air carriers, commercial operators, and commuter air carriers;

(2) Extend the proposal to include the entire aviation community by having the National Weather Service gather and disseminate hazardous weather information to airmen at all airports;

(3) Require aircraft instrumentation which will measure turbulence; and

(4) Require aircraft instrumentation which will enable the flight crew to determine wind shear conditions.

While these comments and suggestions have not been specifically discussed herein because they exceed the proposals in the notice, they are appreciated.

Compliance Date

In order to provide adequate time for certificate holders to accomplish the steps required to achieve compliance with the new requirements, a compliance date for this amendment of December 31, 1977, is established. A certificate holder may obtain an extension of the compliance date, but not beyond June 30, 1978, from the Director, Flight Standards Service if, before December 31, 1977, it shows that it cannot meet the compliance date due to circumstances beyond its control. The certificate holder also would be required to submit a schedule acceptable to that Director, indicating that it will achieve compliance at the earliest practicable date.

Regulatory Evaluation

In accordance with Department of Transportation Regulatory Reform Policy, an evaluation of the anticipated impacts of this amendment has been made. It has been determined that it is probable that no maintenance costs and only minor capital investment costs will be incurred as a result of this amendment. It is probable that some domestic and flag air carriers will incur minimal additional costs for the training of personnel. However, the FAA believes that the additional costs will be more than offset by the enhancement in safety which is expected to result from the rule amendment. Accordingly, it has been determined that this amendment is expected to be neither costly nor controversial and will not impose a significant burden on the private sector, on consumers, or on the Federal, state, or local governments.

Principal Authors

The principal authors of this document are Charles E. Radawick, Air Carrier Regulations Branch, Flight Standards Service, and Richard C. Beitel, Office of the Chief Counsel.

Accordingly, Part 121 of the Federal Aviation Regulations (14 CFR Part 121) is amended, effective June 30, 1977, as follows:

1. By amending § 121.101 by revising paragraphs (b) and (c) and by adding new paragraphs (d) and (e) to read as follows:

§ 121.101 Weather reporting facilities.

* * * * *

(b) Except as provided in paragraph (d) of this section, no domestic or flag air carrier may use any weather report to control flight unless—

(1) For operations within the 48 contiguous States and the District of Columbia, it was prepared by the U.S. National Weather Service or a source approved by the U.S. National Weather Service; or

(2) For operations conducted outside the 48 contiguous States and the District of Columbia, it was prepared by a source approved by the Administrator.

(c) Each domestic or flag air carrier that uses forecasts to control flight movements shall use forecasts prepared from weather reports specified in paragraph (b) of this section and from any source approved under its system adopted pursuant to paragraph (d) of this section.

(d) By December 31, 1977, each domestic and flag air carrier shall adopt and put into use an approved system for obtaining forecasts and reports of adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear, that may affect safety of flight on each route to be flown and at each airport to be used.

(e) A domestic or flag air carrier may obtain an extension of the December 31, 1977, compliance date specified in paragraph (d) of this section and paragraphs (b) and (c) of § 121.601, but not beyond June 30, 1978, from the Director, Flight Standards Service if, before December 31, 1977—

(1) It shows that due to circumstances beyond its control it cannot comply by that date; and

(2) It has submitted by that date a schedule for compliance, acceptable to the Director, indicating that compliance will be achieved at the earliest practicable date.

2. By amending § 121.601 by revising paragraph (b) and redesignating it as paragraph (c), and by adding a new paragraph (b), to read as follows:

§ 121.601 Aircraft dispatcher information to pilot in command: Domestic and flag air carriers.

* * * * *

(b) By December 31, 1977, before beginning a flight, the aircraft dispatcher shall provide the pilot in command with all available weather reports and forecasts of weather phenomena, including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear, for each route to be flown and each airport to be used.

(c) During a flight, the aircraft dispatcher shall provide the pilot in command any additional available information of meteorological conditions (including, by December 31, 1977, adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear), and irregularities of facilities and services, that may affect the safety of the flight.

(Secs. 313(a), 601, 604, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1424); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

Note.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Washington, D.C., on May 19, 1977.

Quentin S. Taylor,
Acting Administrator.

[FR Doc.77-15293 Filed 5-27-77;8:45 am]

[Airspace Docket No. 76-WE-34]

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

Alteration of Transition Area

AGENCY: Federal Aviation Administration/DOT (FAA).

ACTION: Final rule.

SUMMARY: This action proposes to extend the Palm Springs, California, 700 foot transition area to provide additional 700 foot controlled airspace for radar vector procedures. This is necessitated by the commissioning of a radar air traffic control facility at Palm Springs, California.

DATE: Effective date, April 28, 1977.

ADDRESS: Federal Aviation Administration, Office of the Regional Counsel, AWE-7, ATTN: Rules Docket Clerk, Docket No. 76-WE-34, 15000 Aviation Boulevard, Lawndale, California 90261.

FOR FURTHER INFORMATION CONTACT:

Thomas W. Binczak, Specialist, Airspace and Procedures Branch, Air Traffic Division, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, California 90261. Telephone (213-536-6182).

SUPPLEMENTARY INFORMATION: A notice of proposed rulemaking was published in the FEDERAL REGISTER on Monday, January 10, 1977, (42 FR 2079) which proposed to extend the Palm Springs, California, 700 foot transition area to provide additional 700 foot controlled airspace for radar vector procedures. No objections were received.

Subsequent to the notice closing date, information received revealed that the 700 foot transition area, as proposed, could be reduced in size. Since the 700 foot transition area will be smaller in size than originally proposed and impose no additional burden on any person, additional notice and public procedure thereon is unnecessary.

Accordingly, § 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR 71.181) is amended, effective April 28, 1977, as follows:

1. By deleting the description of the Palm Springs, California 700 foot transition area and inserting in lieu thereof the following description:

PALM SPRINGS, CALIFORNIA TRANSITION AREA

That airspace extending upward from 700 feet above the surface beginning at latitude 34°05'00" N., longitude 116°34'00" W., to latitude 33°42'45" N., longitude 115°53'30" W., to latitude 33°26'00" N., longitude 116°09'30" W., to latitude 33°55'00" N., longitude 116°46'00" W., to point of beginning.

(Sec. 307(a), Federal Aviation Act of 1958, as amended (49 U.S.C. 1348(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

NOTE.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Los Angeles, Calif., on April 18, 1977.

W. R. FREHSE,
Acting Deputy Director,
Western Region.

[FR Doc.77-15319 Filed 5-27-77;8:45 am]

Title 15—Commerce and Foreign Trade

SUBTITLE A—OFFICE OF THE SECRETARY OF COMMERCE

PART 3—RULES OF PROCEDURE FOR HANDLING CONTRACT APPEALS

Change of Location

AGENCY: Department of Commerce.

ACTION: Correction to final rule.

SUMMARY: This document corrects a final rule (FR Doc. 76-594) which was published in the FEDERAL REGISTER of January 9, 1976, at page 1583.

EFFECTIVE DATE: This change is effective as of May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

Hugh J. Dolan (202-377-3135).

SUPPLEMENTARY INFORMATION: On January 9, 1976, at 41 FR 1583, the Department of Commerce revised its rules of procedure for handling contract appeals (15 CFR Part 3). Paragraph 2(a) of the Preface to that document contains the address of the Appeals Board.

This amendment revises Paragraph 2(a) of the Preface to read as follows:

2. *Organization and location of the Board.* (a) The Board is located in Washington, D.C., and its mailing address is U.S. Department of Commerce, Appeals Board, Room 5019, telephone 202-377-3135.

HUGH J. DOLAN,
Chairman, Appeals Board.

[FR Doc.77-15414 Filed 5-27-77;8:45 am]

Title 18—Conservation of Power and Water Resources

CHAPTER I—FEDERAL POWER COMMISSION

SUBCHAPTER A—GENERAL RULES

[Docket No. RM76-29; Order No. 563-A]

PART 2—GENERAL POLICY AND INTERPRETATIONS

Policy Statement Concerning Electric Rate Schedule Filings and Requirement for Filing of Comparative Rate Information in Certain Situations

AGENCY: Federal Power Commission.

ACTION: Order denying rehearing.

SUMMARY: This order denies reconsideration of Order No. 563, issued March 21, 1977, 42 FR 16131, as corrected by Erratum Notice of April 1, 1977, which prescribed a new § 2.17 of the Commission's General Policy and Interpretations. The Order finds that the issues raised in the applications for rehearing do not warrant modification at this time.

EFFECTIVE DATE: May 20, 1977.

FOR FURTHER INFORMATION CONTACT:

Lilo Schifter, Office of General Counsel, Federal Power Commission, Washington, D.C. 20426 (202-275-4275).

ORDER DENYING REHEARING

MAY 20, 1977.

Applications for rehearing of the Commission's Order No. 563, issued March 21, 1977,[1] were filed on April 20, 1977, by Publicly Owned Systems,[2] and on April 21, 1977, by Pacific Gas and Electric Company (PG&E) and Municipal Electric Utilities of Wisconsin (MEUW). For the reasons set out below, the Commission shall deny the requests for rehearing or modification of Order No. 563.

PG&E requests clarification of whether under § 2.17(e) the burden of proof shifts to the utility only after the complaining party has pleaded and proved a prima facie case. We believe that a reading of all of § 2.17 leaves no room for misinterpretation. Section 2.17(a) specifically states that in order to have the issue of price discrimination considered in the rate proceeding, the intervening customer or other interested person must support its allegation by a prima facie case. It only follows that there would be no allegations to rebut, and, therefore, no shifting of the burden of proof unless a prima facie case had been established.

Publicly Owned Systems and MEUW are concerned that it would be difficult or impossible to stay within the timetable which is established for data requests and the presentation of the prima facie case and case-in-chief, and request modification of mandatory time limits. Both argue that subsection (a)(4) which includes the wholesale customer's prospective rate for comparable retail service is irrelevant to the prima facie case, and both would want us to elaborate on the remedies available to correct price squeeze.

Order No. 563 is a statement of general policy which adopts procedures for raising price squeeze issues in wholesale electric rate proceedings, procedures which are to be followed unless they are demonstrated in an individual case to be inadequate. As stated in the order, we decided to proceed by statement of policy rather than by rulemaking because we considered it premature to establish rules which would govern consideration of price squeeze issues until we had the opportunity to review what actual fact patterns develop in the trial of "Conway" cases before the Commission. While some of the objections raised by Publicly Owned Systems and MEUW may have merit, we will not modify our statement of policy at this

[1] As corrected by Erratum Notice of April 1, 1977.

[2] A coalition of publicly-owned municipals and REA cooperatives.

time. Any party and the Commission staff has the opportunity to demonstrate to the Presiding Administrative Law Judge that the procedures are inadequate in an individual proceeding. If this should occur with any frequency, we will reevaluate our statement of policy and consider modification. In the meantime we hope that our statement of policy will help to expedite consideration of price squeeze issues, even in those situations where the Presiding Administrative Law Judge may find it justified to deviate from the established procedures.

The Commission finds: The issues raised in the various applications for rehearing do not warrant modification of Order No. 563 at this time.

The Commission orders: (A) The applications for rehearing of Order No. 563 filed on April 20 and 21, 1977, are hereby denied. (B) The Secretary shall cause prompt publication of this order in the FEDERAL REGISTER.

KENNETH F. PLUMB,
Secretary.

[FR Doc.77-15323 Filed 5-27-77;8:45 am]

Title 21—Food and Drugs

CHAPTER I—FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SUBCHAPTER F—BIOLOGICS

[Docket No. 77N-0047]

NORMAL SERUM ALBUMIN (HUMAN) AND PLASMA PROTEIN FRACTION (HUMAN)

AGENCY: Food and Drug Administration.

ACTION: Final Rule.

SUMMARY: This document issues additional standards for Normal Serum Albumin (Human) and Plasma Protein Fraction (Human). Additional standards are specific requirements applicable to particular biological products and supplement the general biologics regulations applicable to all biological products. Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) are similar biological products that are used to treat patients in shock, after burns, or after an abnormal decrease in plasma protein. The additional standards are issued below to give increased protection to the public and reflect changes in manufacturing techniques and testing procedures.

DATES: Effective August 29, 1977; except for the labeling requirements, which are effective November 28, 1977.

FOR FURTHER INFORMATION CONTACT:

Al Rothschild, Bureau of Biologics (HFB-620), Food and Drug Administration, Department of Health, Education, and Welfare, 800 Rockville Pike, Rockville, Md. 20014 (301-443-4626).

SUPPLEMENTARY INFORMATION: In the FEDERAL REGISTER of February 20, 1975 (40 FR 7456), the Commissioner of Food and Drugs proposed additional standards for Normal Serum Albumin (Human) and Plasma Protein Fraction (Human). The proposed standards were issued after thorough investigations of several reported incidents of adverse reactions—including septicemia and hepatitis—involving fractionated products, and after review of pertinent manufacturing procedures for these products. Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) are biological products that are similar in composition and use. Both are blood derivatives obtained through fractionation of human blood plasma. Both products are administered to burn victims to combat plasma loss and are also useful in treatment of shock due to trauma. Also, these products are sometimes useful in replacing plasma proteins in persons with an abnormal decrease in the amount of protein in the blood.

Interested persons were given until April 21, 1975 to submit written comments on the proposal. Twelve letters containing varying numbers of comments regarding the proposal were received. The comments received and the Commissioner's responses are discussed below.

In the following paragraphs, the section numbers for Normal Serum Albumin (Human) are listed first, and those for Plasma Protein Fraction (Human) are listed second. Where the comments discussed apply to both products, the word "product" is used rather than repeating both product names. Where a comment applies to only one product, that product is named.

1. One comment said that the proposed requirements in § 640.80(b) for source material for Normal Serum Albumin (Human) do not take into account the unique problems involved in the collection and use of placentas, and the commentor requested to be exempted from these requirements.

The Commissioner is aware that there are differences between the collection and use of placentas and those of other source materials. But the Commissioner finds that all currently approved licenses for Normal Serum Albumin (Human) that describe use of placentas as source materials comply with the applicable requirements of § 640.80(b). Therefore, it is apparent that an exemption is not necessary. Accordingly, the comment is rejected.

2. The Commissioner is amending §§ 640.80(b) and 640.90(b) of the final regulations by deleting the proposed requirement that source material be "licensed." Subsequent to the proposal for additional standards for Normal Serum Albumin (Human) and Plasma Protein Fraction (Human), FDA promulgated regulations for the collection, processing, and storage of blood and blood products, published in the FEDERAL REGISTER of November 18, 1975 (40 FR 53532), which require in § 606.100 (21 CFR 606.100) that standard operating procedures for licensed and unlicensed products, including source materials, comply with published additional standards in Part 640 (21 CFR Part 640) for the products being processed. Therefore, where additional standards are effective for the source material, whether licensed or unlicensed, compliance with the additional standards determines the propriety of that source material for use in the production of the product.

3. One comment on proposed §§ 640.80(b) and 640.90(b) suggested that the short supply provisions prescribed in § 601.22 (21 CFR 601.22) are outdated, and should not be applicable in the procurement of unlicensed source material. The collection date of source material is currently considered the start of manufacture, but the comment suggested that the pooling date of source material be the start of manufacture.

The Commissioner advises that the source material must be properly processed before pooling to preclude the presence of disease-causing agents or contaminants that may adversely affect the final product. For this reason, proper processing of source material prior to pooling is requisite for approval of the license application for the final product. Assurances of proper processing are provided when the source material is collected in accordance with applicable additional standards such as those for Source Plasma (Human) (21 CFR 640.60 through 640.76). But if the source material includes materials for which additional standards are not effective, e.g., recovered plasma or placentas, the manufacturer of the final product must provide assurances that the source material was properly processed from the time of collection and that it does not contain disease-causing agents or contaminants. The Commissioner believes that such assurances are obtained under the short supply provisions of § 601.22, which permit the initial or partial manufacture of products by persons other than the manufacturer of the licensed product, provided the manufacturer of the licensed product has established with respect to such persons that the procedures, tests, or other arrangements will assure the continued safety, purity, potency, and effectiveness of the product.

In addition, the short supply provision provides a mechanism for an unlicensed source material to be shipped in interstate commerce for use in the manufacture of a licensed final product.

Unless operating under the short supply provision of § 601.22, unlicensed source materials are prohibited in interstate commerce. Accordingly, the comment is rejected.

4. One comment on proposed §§ 640.80(b)(1) and 640.90(b)(1) requested clarification regarding the responsibility of the product manufacturer for assuring use of proper collection procedure for source material for which additional standards have not been prescribed.

The Commissioner advises that the licensed product manufacturer is responsible for ensuring that source material obtained pursuant to the short supply provisions be collected as described in the effective license for the final product. Accordingly, §§ 640.80(b)(1) and 640.90(b)(1) of the final regulations are amended to clarify this responsibility.

5. One comment on proposed §§ 640.80(b)(1) and 640.90(b)(1) asked whether a new application for approval will be required for a collection procedure already approved by the Director of the Bureau of Biologics.

The Commissioner advises that a new application for approval is not required in that situation.

6. One comment on proposed §§ 640.80(b)(4) and 640.90(b)(4) requested clarification regarding the storage and transportation requirements for source materials for which there are no additional standards. Another comment suggested that the word "minimize" should be substituted for the word "prevent" for consistency with §§ 640.80(b)(1) and 640.90(b)(1).

No specific storage and transportation procedure has been prescribed; any procedure may be used as long as it is shown to prevent the risk of contamination. The word "prevent" was chosen for storage and shipment because methods can and have been designed to preclude contamination of the source material. Accordingly, the comment suggesting that the word "minimize" should be substituted for the word "prevent" is rejected. The word "minimize" was used in §§ 640.80(b)(1) and 640.90(b)(1) because it is impossible to prevent some contamination during phlebotomy and pooling.

7. Three comments on proposed §§ 640.81(a) and 640.91(a) said that the date of manufacture, which was proposed as the date of placing the product powder or concentrate into solution, would prohibit alternative methods of processing that do not include a powder or concentrate stage and would also prohibit the current general practice of recovering the product from bulk filling residues, excess samples, and rejected containers. Two of the comments suggested that the date of manufacture should be changed to the date of final sterile filtration, since this would permit recovery of such materials.

The Commissioner recognizes that the proposed date of manufacture would have resulted, unintentionally, in prohibiting alternative methods of processing that do not include a powder or concentrate stage and in prohibiting the practice of recovering processed product. Indeed, a combination of fresh source materials, older powders, frozen pastes, and reworked product can be used to manufacture a product that meets the requirements of § 640.82. Accordingly, the Commissioner agrees that the date of manufacture should be revised as suggested by the comment, and §§ 640.81(a) and 640.91(a) of the final regulations are amended to designate the date of manufacture as the date of final sterile filtration of a uniform pool of bulk solution. For consistency, § 610.50(b) is also amended by adding this date of manufacture to the list prescribed for products that are not subject to official potency tests.

8. Two comments on proposed §§ 640.81(b) and 640.91(b) suggested revision to preclude resubmission of processing methodology data that are already part of the approved license for the product.

The Commissioner advises that the regulations do not require resubmission of such data. Accordingly, no revision of the regulations is necessary. But it should be noted that the Director of the Bureau of Biologics may periodically request that the manufacturer submit in a single document, a revised version of the processing procedure that describes currently used methodology.

9. One comment on proposed §§ 640.81(d) and 640.91(d) requested clarification of the phrase "bulk liquid concentrate." Three comments requested more flexibility in the requirements for storage of bulk liquid concentrates. The comments suggested that bulk liquid concentrates can be held for 10 days at a temperature of up to 5° C prior to further processing rather than the proposed limit of 1 week at a temperature no greater than −5° C. Two of these comments noted that the bulk concentrate may freeze at −5° C or colder, which may result in physical changes in the product and breakage of the containers.

The Commissioner advises that the "bulk liquid concentrate" is the partially processed material, including pastes and other crude fractions. By comparison, "bulk solution" is the bulk product after all processing steps have been completed.

The Commissioner advises that alcohol, which is present in most bulk liquid concentrates, may cause significant physical changes in the product if the concentrates are stored for more than 1 week at the suggested temperatures of 5° C or colder. Accordingly, the Commissioner concludes that the 1-week limit, after which the bulk liquid concentrate must be stored at −5° C or colder, is necessary to prevent physical changes; there is no basis for permitting more flexibility.

The Commissioner believes that the comments noting that bulk liquid concentrate may freeze at −5° C or colder and result in breakage of the container have misinterpreted the term "bulk liquid concentrate" and appear to apply to "bulk solution." The regulation concerning storage of bulk solutions, §§ 640.83 and 640.93 (21 CFR 640.83 and 640.93), requires a storage temperature no greater than that recommended for final container material (21 CFR 610.53). Accordingly, the comments are rejected. But for clarification, §§ 640.81(d) and 640.91(d) of the final regulation are amended by deleting the word "liquid" from the phrase "bulk liquid concentrate" and identifying a storage temperature of 5° C or colder for any bulk fraction to be held one week or less.

10. Eight comments on proposed §§ 640.81(e) and 640.91(e) suggested that the time interval between completion of filling and heating of final containers be extended to 24 hours, since the 4-hour limit is too restrictive and hinders production efficiency.

The Commissioner advises that the proposed 4-hour interval between completion of filling and heating of final containers was chosen because transfer of final containers from the filling line to the heating apparatus can be accomplished within this time. The Commissioner concludes that the 4-hour interval may be too restrictive, as suggested by the comments, and should be extended. The Commissioner finds that extension to 24 hours will not adversely affect the ability of the heating to inactivate the hepatitis virus or the integrity of the final product. Accordingly, the comments are accepted, and §§ 640.81(e) and 640.91(e) of the final regulations are amended by extending the time interval between completion of filling and heating of final containers, from 4 hours to within 24 hours.

11. Two comments on proposed §§ 640.81(e) and 640.91(e) requested clarification of the heat treatment requirement. Another comment said that the heating period of 10 hours is too specific and suggested revision to permit a range within 1 hour.

The Commissioner advises that the solution must be heated for 10 hours at an attained temperature of 60° C±0.5° C to assure the inactivation of hepatitis virus. The Commissioner agrees that it may be unnecessarily burdensome to pinpoint the attained heating time at exactly 10 hours. Therefore the comments are accepted, and §§ 640.81(e) and 640.91(e) of the final regulations are amended to permit a range of not less than 10 nor more than 11 hours. The Commissioner concludes that the extended period will not adversely affect the quality of the final product.

12. Two comments on proposed §§ 640.81(e) and 640.91(e) said that heating the final product in the final container will result in a greater occurrence of particulates. One of these comments suggested that heating the bulk solution would be more efficient. The other comment requested that the product not be regarded as a large volume parenteral for purposes of applying the standards for the presence of particulates.

The Commissioner recognizes that heating the product in the final container may result, as may heating the product in bulk, in occurrence of particulates. Nevertheless, the Commissioner believes that final container heat treatment provides a greater margin of safety than heat treatment of bulk solution since the final product is the product intended for the marketplace. The Commissioner advises that the proposed regulations under § 212.3(b)(1) concerning large volume parenterals, published in the FEDERAL REGISTER of June 1, 1976 (41 FR 22202), are not applicable to biological products. Accordingly, the comments are rejected.

13. One comment on §§ 640.81(f) and 640.91(f) suggested that the amount of stabilizers should permit a specified range, such as ±20 percent, that is related to the assay limit for the stabilizers. No data were submitted with the comment.

The Commissioner finds that the amounts of stabilizers required in §§ 640.81(f) and 640.91(f) are the same as those currently identified in the effective licenses for the product. In addition, the

Commissioner is not aware of any data from which to establish a meaningful range. Accordingly, the comment is rejected. The Commissioner invites the submission of data upon which a meaningful range can be established.

14. Two comments on §§ 640.81(g) and 640.91(g) said that particles of protein origin may develop in the final container as a result of the heating requirements prescribed in §§ 640.81(e) and 640.91(e), and be detected during the incubation period. One of the comments provided no data, but suggested that since the particles are extremely small and scarce, a level of acceptability should be permitted. The other comment said that the final containers may be rejected because of turbidity not caused by microbial contamination and that these containers could be included in rework solutions.

The Commissioner has no basis to establish a level of acceptability of particles of protein in final containers because data are not available on which an acceptable level can be established that would provide a safe, pure, potent and effective product. The Commissioner has no objection to, nor does the regulation prohibit, reprocessing of material cited by the comment, provided that the processing and tests on final products conform with those prescribed in §§ 640.81 and 640.91, as well as §§ 640.82 and 640.92, respectively. Accordingly, the comments are rejected.

15. Three comments on proposed §§ 640.81(g) and 640.91(g) said that the temperature range of 20° to 25° C for incubation is too restrictive because it would require storage of the product in an incubator or air conditioned area. The comments suggested incubation temperatures that range from 15° to 35° C to provide greater flexibility and allow the growth of a broader spectrum of microbial contaminants.

The proposed temperature range was selected to facilitate optimum microbial growth. A temperature lower than 20° C is inappropriate since some microorganisms grow very slowly at this temperature while others do not grow at all. The Commissioner agrees, however, that temperatures up to 35° C will provide greater flexibility in storage procedures without significantly compromising the growth of microbial contaminants. Accordingly, §§ 640.81(g) and 640.91(g) of the final regulations are amended by broadening the incubation temperature from 20° to 25° C to a range of 20° to 35° C.

16. Five comments on proposed §§ 640.81(g) and 640.91(g) objected to the requirement that the final containers of the product be incubated for 21 days. The comments said that extension of the incubation period from 7 days, now prescribed in the minimum requirements, to 21 days would increase inventory cost to the manufacturer because of the need for additional storage space, and that this cost would ultimately be borne by the consumer. In addition, the comments noted that the extended incubation period has no advantage because bacterial contamination of a 25-percent product may not be visually detected, since the refractive indices of some bacterial cells are similar to those of the concentrated product solution.

The 21-day incubation period was proposed in response to investigation by FDA into several adverse reactions involving the product, including septicemia and pyrogenic reactions, and on the basis of data indicating that some slow-growing microorganisms may not be visually detectable during an incubation period of 14 days. The 21-day period was proposed to cover the 14 days needed for slow-growing organisms and included an additional 7-day safety factor. Upon review of all the data, the Commissioner concludes that the requirement for 7 additional days may be deleted since all contaminating organisms will ordinarily be visually detectable within 14 days. Moreover, the 14-day incubation period is consistent with the incubation period prescribed for nearly all other biologicals in the general sterility test, § 610.12 (21 CFR 610.12). Accordingly, §§ 640.81(g) and 640.91(g) of the final regulations are amended to require that the product shall be stored at 20° to 35° C for at least 14 days after heat treatment.

The Commissioner is of the opinion that any cost increase resulting from the extended incubation period is justified in view of the additional margin of safety provided by this requirement.

The Commissioner is aware that detection of bacterial contamination of a 25-percent product may be difficult, as noted by the comment. But visual contamination is more evident after 14 days than after 7 days because of the increased bacterial growth occurring during the longer incubation period. In view of this, and the applicability of these additional standards to products other than 25 percent, no further change is made in the final regulation.

17. Two comments on proposed §§ 640.81(g) and 640.91(g) requested clarification and questioned the requirement that the type of organisms be determined if growth occurs in final containers.

The Commissioner advises that determining the type of organisms is intended to aid in the identification of the source of the contamination problem. For example, some genera of organisms such as *Micrococcus* and *Bacillus* are frequently implicated in faulty aseptic technique. Thus, repeated isolation of organisms of these genera may suggest a likely focus for appropriate corrective action. For clarification, §§ 640.81(g) and 640.91(g) of the final regulations are amended by using the phrase "the organisms shall be identified as to genus" rather than "the types of organisms shall be identified" as proposed.

18. One comment on proposed §§ 640.82(a) and 640.92(a) asked whether the protein conversion factor is 6.25 percent of total nitrogen determined.

The Commissioner advises that the protein conversion factor is 6.25.

19. One comment on proposed §§ 640.82 and 640.92 asked whether the required final product tests for protein, sodium, and heme could be conducted on the bulk final solution rather than on solutions in final containers.

The Commissioner believes that, whenever possible, the product should be tested in the form in which it is distributed in the marketplace. The Commissioner finds that this requirement presents no undue hardship to manufacturers of these products since all the tests can be performed on the contents of a single final container. Accordingly, the comment is rejected.

20. Two comments suggested that proposed § 640.82(a) be amended to permit manufacturing of Normal Serum Albumin (Human) as 4 and 20 percent protein solution in addition to the 5 and 25 percent solutions specified in the proposal. The comments stated that such products are commonly used in, and meet the requirements of, other countries.

Since the manufacture of Normal Serum Albumin (Human) containing 4 and 20 percent protein will not significantly affect the use pattern of the product in the United States and will facilitate manufacture for export to countries that prefer Normal Serum Albumin (Human) as 4 and 20 percent protein solutions, the Commissioner accepts the comments. Accordingly, § 640.82(a) of the final regulation is amended to specify that the final Normal Serum Albumin (Human) product shall conform to one of the following concentrations: 4±0.25 percent; 5±0.30 percent; 20±1.2 percent; or 25±1.5 percent solution of protein. For consistency, § 640.84 (a)(3) and (a)(4) are also amended to require that the container and package labels shall contain: (1) a statement of the need for additional fluids when 20 percent or 25 percent albumin is administered to a patient with marked dehydration, and (2) a statement of the albumin content, expressed as either a 4 percent, 5 percent, 20 percent, or 25 percent solution, respectively.

21. One comment on proposed §§ 640.82(b) and 640.92(b) asked whether the method for protein determination must be reapproved by the Director of the Bureau of Biologics if it was described in a license application approved before publication of the regulations.

The Commissioner advises that the method need not be submitted for reapproval since these regulations do not alter currently approved procedures for protein determination.

22. Three comments on proposed § 640.82(d) suggested that the sodium content for Normal Serum Albumin (Human) should be the same as that prescribed for Plasma Protein Fraction (Human) in § 640.92(d), irrespective of the protein concentration, because both products are used for plasma volume expansion under similar conditions. One of these comments said that red blood cells hemolyze (rupture) when suspended in 25 percent Normal Serum Albumin (Human) that contains less than 90 milliequivalents of sodium per liter. The comment further said that this hemolysis is dependent on the sodium

concentration, not on the suspending medium, the cell concentration, or the batch tested.

As stated in the preamble of the proposal, a lower limit was not proposed for the sodium content of 25 percent Normal Serum Albumin (Human) in recognition of the fact that where a higher sodium concentration is desired by the administering physician, the sodium content can be adjusted by dilution with Normal Saline.

In view of the apparent conflict concerning the sodium level, the Commissioner consulted the Advisory Review Panel for Blood and Blood Derivatives established pursuant to § 601.25 (21 CFR 601.25). The panel recommended that because of the hemolysis potential and regardless of protein concentration, the sodium content of both Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) should be within the range of 130 to 160 milliequivalents per liter (the isotonic range). An isotonic solution has the same osmotic pressure as that of physiological solutions, e.g., blood serum. The panel stated that sodium does not cross vascular membranes instantaneously and therefore exerts a transient fluid-drawing or fluid-retaining effect (a noncolloid osmotic pressure). The panel further recommended that this noncolloid osmotic pressure, which is indicated by the sodium content when the latter is expressed as a value or range in terms of milliequivalents per liter, is clinically significant and should be stated on the label of the product so that this information is available to the physician when treating a patient.

The Commissioner has considered these suggestions and recommendations and concludes that, regardless of protein concentration, the sodium content of both Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) should be within the physiological range of 130 to 160 milliequivalents per liter. The potential for hemolysis, cited by the comment, has been confirmed in laboratory tests conducted by the Bureau of Biologics. In addition, review of released lots of Normal Serum Albumin (Human) that contain 25 percent protein reveals that the product of most manufacturers contains at least 130 milliequivalents of sodium per liter. Sections 640.82(d) and 640.92(d) of the final regulations are amended accordingly. In those instances in which the physician determines that a lower sodium concentration is indicated, it is expected that dilution with Sterile Water for Injection will be performed.

The Commissioner concludes that the sodium content should appear on the label of the product as the panel recommends. Therefore, §§ 640.84(a)(1) and 640.94(a) of the final regulations are also amended by adding the requirement that the container and package labels shall contain the sodium content in terms of a value or a range in milliequivalents per liter. The Commissioner emphasizes that the phrase "salt poor" is misleading and shall not be used in future labeling.

23. One comment on proposed § 640.82(d) requested that shipment of Normal Serum Albumin (Human) with sodium content different from that prescribed in these regulations be allowed if the product was manufactured before publication of the final order.

The Commissioner does not intend to take regulatory action against shipment of products with a sodium content different from that prescribed in the final regulation for products manufactured before the effective date of the regulation.

24. One comment on proposed §§ 640.82(f) and 640.92(f) suggested that the heat stability test be deleted since use of the nephelometric system is not required. The comment noted that the subtle types of product changes that result from heating at 57° C for 50 hours can be detected only by the nephelometric system and cannot be detected by the proposed visual inspection.

The Commissioner advises that the proposed heating requirement is intended to identify potentially unstable product lots that can be identified visually by the development of haze or other gross changes. The Commissioner is aware that the nephelometric system is more sensitive than visual inspection in the detection of subtle changes. But as stated in the preamble to the proposal, the scientific literature indicates that a nephelometric reading has limited significance and reliability in clinical evaluation of the safety and efficacy of the product. The Commissioner concludes that the evidence available to date does not support a correlation between safety or efficacy and those changes detectable only by the nephelometric system. Accordingly, the comment is rejected. But the Commissioner encourages manufacturers to gather evidence in this area and to use nephelometry whenever it is appropriate for quality control.

25. One comment on proposed §§ 640.83(b) and 640.93(b) questioned the requirement to store sterile bulk solution at a temperature of 5° C or colder, in view of the fact that the final product can be stored at room temperatures. Another comment requested clarification of the phrase, "after all processing steps" used to describe the time when this storage requirement applies.

The Commissioner agrees that the required storage temperature for the final product will adequately protect safety, purity, potency and effectiveness of the sterile bulk solution provided it is stored in a manner that will ensure its continued sterility. Accordingly, §§ 640.83(b) and 640.93(b) of the final regulations are amended to require that the bulk solution be stored in a manner that will ensure the continued sterility of the product and at a temperature not exceeding the recommended storage temperature for the final product prescribed in § 610.53 (21 CFR 610.53).

The Commissioner advises that the phrase, "after all processing steps" means the stage of production when the bulk solution is ready for filling into final containers.

26. One comment on proposed §§ 640.83(b) and 640.93(b) suggested that either filling into final containers within 48 hours of sterile filtration or sterility testing of bulk solution at the time of filling should be required to minimize contamination of the product. No data were submitted to support this suggestion. Inasmuch as no supportive data are available, the Commissioner concludes that there is no basis for requiring these procedures where the product is processed as prescribed in these regulations. Accordingly, the comment is rejected.

27. One comment on proposed §§ 640.84 and 640.94 said that smaller-sized containers, such as 20- and 50-milliliter containers, may not accommodate all the labeling requirements. The comment suggested the use of partial labels, as prescribed in § 610.60(c), if all the required information cannot be accommodated on the package and container labels.

The Commissioner advises that reference in §§ 640.84 and 640.94 to § 610.60 authorizes the use of partial labels if the container is capable of bearing only a partial label. But it should be noted that most licensed manufacturers currently incorporate all the required labeling information on all containers and package labels. Accordingly, the comment is rejected.

28. One comment on proposed §§ 640.84(a)(1) and 640.94(a) requested clarification of the phrase "osmotic equivalent" and the method by which it is calculated or determined.

The Commissioner advises that the osmotic equivalent is the fluid-drawing capacity of the product as compared to the fluid-drawing capacity of the proteins in plasma. Comparison of relative osmotic efficiencies and calculation of the osmotic equivalent are described in detail in the following reference: Scatchard, G., A. C. Batchelder and A. Brown, "Chemical, Clinical, and Immunological Studies on the Products of Human Plasma Fractionation. VI. The Osmotic Pressure of Plasma and of Serum Albumin," "Journal of Clinical Investigation," 23:458–464, 1944.

29. One comment on proposed §§ 640.84(a)(2) and 640.94(b) suggested that the labeling contain a statement warning against use of the product if the container has been opened more than four hours prior to use rather than the warning against use if turbid, as proposed. It was suggested that this additional statement would clarify the implication that the product is safe merely so long as turbidity is not detected.

The Commissioner advises that the proposed statement, "DO NOT USE IF TURBID", is intended to preclude the use of a product that is contaminated or contains large particles of denatured proteins. The Commissioner notes that many manufacturers already include the statement "USE PROMPTLY" in circulars for their product. The Commissioner concludes that an additional warning

statement should be added because it amplifies the purpose of the proposed warning. Accordingly, §§ 640.84(a)(2) and 640.94(b) of the final regulations are amended to require that the container and package labels shall contain the caution, "DO NOT USE IF TURBID OR MORE THAN 4 HOURS AFTER THE CONTAINER HAS BEEN ENTERED."

30. One comment on proposed § 640.84 (b) objected to the requirement that the type of source material used to manufacture Normal Serum Albumin (Human) shall appear on the container, package label or in the package insert.

As stated in the preamble to the proposal, the Commissioner believes that information regarding the source of Normal Serum Albumin (Human) should be available to the physician. For example, placental albumin contains a higher level of alkaline phosphatase than plasma albumin. Patients receiving placental albumin may show a temporary elevation of serum alkaline phosphatase. This information may be needed by physicians to make complete medical evaluation of some clinical cases. Accordingly, the comment is rejected.

31. Four comments on proposed §§ 640.85(a) and 640.95(a) suggested revisions to permit the following: (1) Submission of samples in final containers that are partially filled but contain 100 milliliters of product as required; (2) submission of samples concurrently with the incubation of final containers as prescribed in §§ 640.81(g) and 640.91(g), and (3) submission of samples prior to completion of the tests prescribed in §§ 640.82 and 640.92.

The submission of a sample consisting of at least two final containers packaged as for distribution was proposed so that tests conducted by the Bureau of Biologics would be comparable with those conducted by the manufacturer. Therefore, the Commissioner concludes that the sample must be as intended for distribution in both volume and container. Submission of samples in partially filled containers, as suggested, is rejected.

Section 610.1 requires that each applicable test shall be made on each lot after completion of all processes of manufacture that may affect compliance with the standard to which the test applies. Therefore, the Commissioner rejects the suggestion that samples be submitted concurrently with the incubation requirement prescribed in §§ 640.81 and 640.91 because completion of these requirements affects compliance with the sterility test prescribed in § 610.12.

The Commissioner advises that the regulations do not prohibit the submission of final container samples prior to completion of the tests on final products prescribed in §§640.82 and 640.92. Therefore, §§ 640.85(a) and 640.95(a) need not be revised as suggested by the comments.

32. One comment on proposed §§ 640.85 (a) and 640.95(a) suggested revision to permit submission of samples in final containers prior to packaging for distribution. The comment noted the unnecessary expenditures of manpower and materials incurred by packaging the entire lot for distribution in the event that the lot is not released.

Since the final packaging has no bearing on the results or comparability of required tests, and since product in final containers is the form of the product that will be marketed, the Commissioner accepts the suggestion and §§ 640.85(a) and 640.95(a) of the final regulations are amended by substituting the word "intended" for the phrase "packaged as" in describing the containers submitted to the Bureau.

33. One comment on proposed §§ 640.85 (b) and 640.95(b) suggested that there should be an approved, uniform protocol format.

The Commissioner is evaluating the feasibility of a uniform protocol format. No amendment to these regulations can be proposed at this time.

34. Three comments on proposed §§ 640.85(b)(1) and 640.95(b)(1) objected to the required submission of lot numbers for all in-process bulk lots used to prepare the final bulk material, including a description of any reprocessing performed on in-process bulk material. The comments stated that this information is (1) proprietary, (2) available to FDA during routine inspection, and (3) not related to the safety, purity, potency, or efficacy of the product.

The Commissioner advises that submission of this information was proposed because data available before the publication of the proposal suggested a correlation between the extent of reprocessing bulk material in process and the safety of the product. More recent data demonstrate, however, that the extent of reprocessing may not always be directly correlated with the safety, purity, potency, or efficacy of the product. Accordingly, §§ 640.85(b)(1) and 640.95(b)(1) are deleted in the final regulation. The subsequent subparagraphs are renumbered sequentially. Information regarding reprocessing at later stages of production must be submitted pursuant to other provisions of these additional standards.

The Commissioner advises that proprietary information is regularly submitted to FDA by manufacturers and is also available during FDA inspections. These factors do not therefore preclude the submission of information in protocols or similar reports to the Agency.

35. Two comments on proposed §§ 640.85(b)(2) and 640.95(b)(2) (redesignated as §§ 640.85(b)(1) and 640.95(b)(1) respectively), requested clarification of the term "reprocessing" and the intent of the requirement to describe in the protocol any reprocessing performed on the final bulk or final container material before packaging. The comments stated that the term could be interpreted to include repeat steps which would not affect the safety or efficacy of the product, such as refiltration due to blockage of the filter.

The term "reprocessing" means repetition of an operation. The Commissioner advises that the requirement that certain reprocessing information be reported in the protocol applies to bulk solution and final container material and therefore includes, for example, repooling, reprecipitation and refiltration; the term also includes repeat steps cited by the comments. The Commissioner considers it necessary to review all information related to reprocessing at this stage of production to permit the evaluation of these deficiencies for their potential effect on the safety, purity, potency and effectiveness of the final product. Accordingly, §§ 640.85(b)(1) and 640.95(b)(1) of the final regulations are amended to require that a brief description of any reprocessing of bulk or final container material because of failure to pass required tests must be included in a protocol for each filling of each lot of product.

36. Two comments on proposed §§ 640.85(b)(3) and 640.95(b)(3) (redesignated as §§ 640.85(b)(2) and 640.95(b)(2), respectively), said that the requirement to include in the protocol the results of all required tests, including initial and repeat tests performed on bulk and final container material, is inconsistent with § 610.1 (21 CFR 610.1), which provides that a test result may be discarded when it is established that the test is invalid because of causes unrelated to the product.

The Commissioner disagrees with the comments that § 610.1 is inconsistent with the information to be included in the protocol. The fact that a manufacturer is not bound by a test rendered invalid for causes unrelated to the product does not bar review and evaluation by FDA, whose interest goes beyond the particular test objective at issue. The Commissioner considers it necessary to review the data from all tests whether the manufacturer deems the test valid or invalid. Many required tests, such as that for sterility in § 610.12 (21 CFR 610.12) and that for general safety in § 610.11 (21 CFR 610.11), are subject to a relatively large number of variables that may influence the validity of test results although they are unrelated to the product. To evaluate the validity of test data adequately and to confirm the manufacturer's claim of the safety, purity, potency, and effectiveness of the product, results of all required tests, valid or invalid, must be reviewed by the Bureau. Accordingly, the comments are rejected.

37. One comment on proposed §§ 640.85(b)(4) and 640.95(b)(4) (redesignated as §§ 640.85(b)(3) and 640.95(b)(3), respectively) objected to the requirement to include in the protocol the reasons for, and results of, any heating steps on final container material other than those required in §§ 640.81(e) and 640.91(e), or those performed on bulk material. The comment said that this requirement is restrictive and does not allow for variation in manufacturing procedures that are already in the approved product license.

The Commissioner advises that the reasons for and results of the heating steps are required because they identify and help correct variations in the manufacturing procedures. In addition, the requirement to report information does not

prohibit heating the bulk and final container materials, and it does not prohibit variations in manufacturing procedures, provided such heating and variations are described in the approved product license and are as prescribed in §§ 640.86 and 640.96. Accordingly, the comment is rejected.

38. Five comments on proposed §§ 640.85(b)(5) and 640.95(b)(5) (redesignated as §§ 640.85(b)(4) and 640.95(b)(4), respectively), objected to the requirement to include in the protocol the total number of vials filled and the fill volume for the vials. The comment argued that protocols are subject to public disclosure and noted that lot size, including volume and number of vials filled, is trade secret information. The comments said that the proposal is not pertinent to the safety, purity, potency, and effectiveness of the product.

The Commissioner advises that FDA regulations under § 20.61 (21 CFR 20.61) on public disclosure of records under the Freedom of Information Act protect trade secrets in documents submitted as part of a biologics license file. Section 601.51(e)(7) (21 CFR 601.51(e)(7)) provides that records showing the manufacturer's testing of a particular lot are available for public disclosure only after deletion of data or information that would show the volume of the drug produced, manufacturing procedures and controls, yield from raw materials, and costs. The biologics regulations are consistent with §§ 20.61 and 20.111(c)(2) (21 CFR 20.61 and 20.111(c)(2)) of the Agency's freedom of information regulations.

The Commissioner disagrees with the comment's contention. Such data are extremely important in assessing problems encountered in manufacture and distribution. Such data help determine appropriate remedial action. Accordingly, the comments are rejected.

39. Four comments on proposed §§ 640.85(b)(6) and 640.95(b)(6), (redesignated §§ 640.85(b)(5) and 640.95(b)(5), respectively), suggested the following revisions: (1) Permit identification of the total number of rejected filled vials in a supplementary protocol submitted after completion of the incubation period prescribed in §§ 640.81(g) and 640.91(g); (2) require only the number of vials rejected for turbidity rather than the total number of rejected vials. The comments said that requiring the total number of rejected filled vials to be identified in the original protocol would unnecessarily increase inventory cost, since the protocol could not be submitted until after incubation is completed, thereby prolonging release of the product. The comments also said that the total number of rejected filled vials is not related to the safety of the product, since many vials are rejected because of physical defects such as crooked labels.

Identification of the total number of rejected filled vials is available only after completion of the incubation period.

The Commissioner advises that submission of this information in a "supplementary protocol" is acceptable because it is considered a part of the same protocol for each filling of each lot. But the Commissioner emphasizes that written notification of official release of a lot will not be issued until all information related to the safety and purity of the product is received and reviewed by the Bureau of Biologics; hence, there may be little advantage in submitting a partially completed protocol.

The Commissioner rejects the second suggested change. The Commissioner considers it necessary to review information concerning the total number of rejected filled vials to determine the adequacy of manufacturing and quality control procedures.

Moreover, patterns of deficient practices producing rejected vials raise legitimate questions about the safety of vials that pass and may justify closer investigation. The Director of the Bureau of Biologics may request additional samples and protocols for any licensed product to determine the propriety of releasing any lot (21 CFR 601.2).

40. Three comments on proposed §§ 640.85(c) and 640.95(c) requested clarification of the phrase "written notification of release." The comments said that other additional standards, such as those for Typhoid Vaccine (21 CFR 620.14) and Anthrax Vaccine, Adsorbed (21 CFR 620.24), require only that the product shall not be issued by the manufacturer until notification of official release is received from the Director of the Bureau of Biologics. The comments suggested deletion of the word "written" from the phrase to conform it with what was alleged to be the current practice of releasing biological products based on telephone communication from the Bureau—a procedure that avoids delays in the mailing system.

The Commissioner advises that the phrase "written notification of official release," means the official document signed by the Director of the Bureau of Biologics, or by his designated agent, notifying the manufacturer that a product can be issued. The phrase "notification of official release" in §§ 620.14(c)(2) and 620.24(c)(2) as well as in §§ 620.35(e)(3), 630.66(e)(3), 630.75(d)(2), 630.86(e)(3), 650.6(b), 650.11(c)(4), 660.2(f)(1)(iii) and 660.15(c) is intended to mean the same. The Commissioner advises that it is not current practice to release any biological product based on telephone communication. Rather, to ease preparation and planning by the manufacturer, and as a courtesy, manufacturers are advised by telephone, that a product will be released after the official document is signed by or on behalf of the Director. Communication other than written notification of release is not official, and the product cannot be issued by the manufacturer on this basis. Accordingly, the comments are rejected. But for clarification and consistency, the Commissioner is amending §§ 620.14, 620.24, 620.35, 630.66, 630.75, 630.86, 650.6, 650.11, 660.2 and 660.15 to specify that "written" notification of official release must be received before issuance of the product by the manufacturer.

41. One comment on proposed §§ 640.86 and 640.96 requested clarification of the terms "method," "process," and "conditions." Another comment said that the requirements regarding equivalent methods are not needed, since § 601.6(b) (21 CFR 601.6(b)) already requires proposed changes to be reported to the Bureau and provides that such changes are not effective until receipt of notification of acceptance from the Director.

The Commissioner advises that the terms "method," "process," and "conditions" refer to any manufacturing procedures and to all analytical test procedures. The "equivalent methods" provisions are similar in scope to § 601.6(b) and the definition of the term "manufacture" in § 600.3(u). The Commissioner believes that it is appropriate to reiterate the requirement concerning equivalent methods in the published additional standards for Normal Serum Albumin (Human) and Plasma Protein Fraction (Human), and other licensed products.

42. Two comments on proposed § 640.91(b)(1) requested clarification of whether the limit of no more than 5 percent increase of alpha-globulin-like components is to be determined in terms of the total protein of Plasma Protein Fraction (Human) or in terms of the alpha-globulin-like components only, before and after heating. The comments said that all current manufacturing methods produce Plasma Protein Fraction (Human) that shows an increase of alpha-globulin-like components of more than 5 percent after heating when compared to the alpha-globulin-like component present before heating. The comments said that this increase averages 32 percent.

The Commissioner intended that the limit of no more than 5 percent increase in alpha-globulin-like components after heating be determined in terms of the total protein of Plasma Protein Fraction (Human). Accordingly, § 640.91(b)(1) of the final regulation is amended to specify that the product, after the heating prescribed in paragraph (e), must not show an increase in the components with an electrophoretic mobility similar to that of alpha globulin that amounts to more than 5 percent of the total protein.

43. One comment on proposed § 640.91(b)(2) said that the requirement that Plasma Protein Fraction (Human) contain less than 5 percent protein with a sedimentation coefficient of greater than 7.0 S is restrictive since it implies that only ultracentrifugal analysis is permitted.

The Commissioner disagrees; alternate methods are already permitted in accordance with § 640.96. Accordingly, the comment is rejected.

44. Two comments requested clarification of proposed § 640.92(b) as to whether the limit of 1 percent gamma globulin in the final product is in terms of the total protein or the total globulin.

The Commissioner intended the limit to be in terms of the total protein, and §640.92(b) of the final regulation is clarified accordingly.

45. One comment on proposed § 640.92 (c) suggested that the requirement for hydrogen ion concentration of Plasma Protein Fraction (Human) should be the same as that for Normal Serum Albumin (Human). The comment contended that there is no rationale for having different hydrogen ion concentration requirements for the two products, but provided no data.

The Commissioner advises that currently available data demonstrate that Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) that conform to the hydrogen ion concentration requirements prescribed in §§ 640.82(c) and 640.92(c), respectively, will be safe, pure, potent, and effective. The Commissioner invites submission of data that support the comment, but he currently has no basis to change the requirement. Accordingly, the comment is rejected.

46. One comment on proposed § 640.92 (e) said that the test for heme content was originally developed for Normal Serum Albumin (Human) and presented data demonstrating that the test is unreliable for Plasma Protein Fraction (Human) because of the amount of nonalbumin protein components in the product.

The Commissioner concludes that the data presented with the comment adequately demonstrate that the proposed test is unreliable when used to measure the heme content of Plasma Protein Fraction (Human) and should not be required. Accordingly, the comment is accepted, and proposed § 640.92(e) is deleted. For continuity, proposed § 640.92 (g) is renumbered § 640.92(e).

A few comments were not directly related to the proposed additional standards. Nevertheless, the comments and the Commissioner's responses are as follows:

47. One comment suggested that a more stringent pyrogen test than that prescribed in § 610.13(b) (21 CFR 610.13 (b)) should be required for the product to reduce the incidence of febrile reactions from its administration.

In the FEDERAL REGISTER of September 22, 1976 (41 FR 41422), the Commissioner amended the regulation concerning pyrogen tests (21 CFR 610.13) to increase uniformity, sensitivity, and reliability of the pyrogen test procedure. The Commissioner is not aware of any satisfactory data demonstrating that a more stringent pyrogen test alone would increase detection of pyrogenic substances and reduce the incidence of febrile reactions in recipients. But the Commissioner invites submission of data to support a requirement for a more stringent pyrogen test.

48. One manufacturer asked whether continuing clinical trials are necessary since such a requirement was not included in the proposed additional standards for Normal Serum Albumin (Human). The firm that submitted the comment routinely conducts clinical trials on all lots and considers clinical trials the best means available to ensure the product's safety.

The Commissioner advises that clinical trials on lots of Normal Serum Albumin (Human) are not required after a license has been approved; clinical trials are required only prior to approval for licensure and certain amendments to the license. But the Commissioner has no objection to a manufacturer's conducting additional tests, including clinical trials, on a product that is manufactured in accordance with its license and applicable regulations.

49. One comment suggested that the following requirements should be added to the additional standards: (1) The product must be hepatitis B antigen negative by radioimmunoassay (RIA) or equivalent method; (2) the product must not contain soluble human leucocyte antigens (HLA); (3) the product must be free of endotoxin; and (4) complete, easily retrievable records of each unit administered to patients must be kept by hospitals.

The Commissioner concludes that testing the final product for hepatitis B surface antigen (HB_sAg) is unnecessary, for the following reasons: (1) §§ 640.81 (g) and 640.91(g) require heating the product in final containers for 10 hours at 60° C—this temperature will inactivate any hepatitis virus present; (2) § 610.40(a) (21 CFR 610.40(a)) requires that each donation of blood, plasma, or serum to be used in preparing a biological product shall be tested by a method of third generation sensitivity, such as RIA; and (3) § 610.40(d) (21 CFR 610.40(d)) requires that blood, plasma, or serum that is reactive when tested for HB_sAg shall not be used in manufacturing injectable biological products, such as Normal Serum Albumin (Human) and Plasma Protein Fraction (Human). The Commissioner is of the opinion that, because the current testing and manufacturing requirements adequately ensure that the final product is free of hepatitis B virus infectivity, patient protection will not be enhanced by the suggested requirement that the final product be tested and found nonreactive for HB_sAg. Therefore, the portion of the comment suggesting that the product must be hepatitis B surface antigen negative by RIA or equivalent method is rejected.

The Commissioner is not aware of any processing procedure that will eliminate HLA antigen, as suggested by the comment. Furthermore, although there are data to relate HLA to potential transplantation and white cell transfusion immunity problems, the significance of the presence of HLA in the product is not completely understood. Therefore, it is not now practical or reasonable to require that the product not contain HLA. But the Commissioner encourages all interested persons to submit data that may contribute to a better understanding of HLA and its clinical role.

Concerning the suggestion that the product must be free of endotoxin, the Commissioner agrees that elimination of endotoxin would contribute to the safety of the product. License requirements and standards for Limulus Amebocyte Lysate (LAL) were proposed in the FEDERAL REGISTER of September 18, 1973 (38 FR 26130). LAL has been shown to be a more sensitive indicator for the presence of bacterial endotoxin than is the currently prescribed pyrogen test.

But there are unresolved problems in using LAL to detect endotoxin in the product—the physicochemical binding of the product and endotoxin hampers specificity. Although no license for the use of LAL has yet been issued, the Bureau is actively studying the use of LAL as a means to a more effective method for detecting endotoxin in biological products.

The Commissioner agrees with and endorses the suggestion that hospitals keep complete, easily retrievable records of each unit administered to patients and encourages the individual States, local jurisdictions, physicians, and hospital staffs to accept this recommendation.

50. One comment suggested adding a requirement that Plasma Protein Fraction (Human) be required to contain less than 1 nanogram of bradykinin per milliliter. Bradykinin is a substance liberated by the action of proteolytic enzymes on a precursor (kininogen) found in the globulin fraction of blood plasma. Bradykinin can produce a transient decrease in blood pressure. The comment stated that since Plasma Protein Fraction (Human) is indicated for blood volume expansion in patients suffering severe, prolonged, and acute shock, the presence of bradykinin may cause prolonged irreversible hypotension, and even death.

The Commissioner is aware that bradykinin is implicated in hypotension. Precautionary statements regarding hypotensive responses are given in the labeling of Plasma Protein Fraction (Human). But data relating the concentration of bradykinin to the degree of clinical hypotension are not sufficient to establish a maximum permissible level. Accordingly, the Commissioner rejects the comment. Interested persons are, however, encouraged to submit data relating to the concentration of bradykinin and the degree of clinical hypotension expected.

The Commissioner has carefully considered the environmental effects of the proposed regulation and, because the proposed action will not significantly affect the quality of the human environment, has concluded that an environmental impact statement is not required. A copy of the environmental impact assessment is on file with the Hearing Clerk, Food and Drug Administration.

Additional background data and information on which the Commissioner relies in promulgating this regulation are on public display in the office of the Hearing Clerk, Food and Drug Administration, Room 4-65, 5600 Fishers Lane, Rockville, Md. 20857.

Therefore, under the Public Health Service Act (sec. 351, 58 Stat. 702 as amended (42 U.S.C. 262)) and under authority delegated to the Commissioner (21 CFR 5.1), Parts 610, 620, 630, 640, 650, and 660 are amended as follows:

PART 610—GENERAL BIOLOGICAL PRODUCTS STANDARDS

1. In Part 610, by revising § 610.50(b) to read as follows:

§ 610.50 Date of manufacture.

* * * * *

(b) For products that are not subject to official potency tests, (1) the date of removal from animals, (2) the date of extraction, (3) the date of solution, (4) the date of cessation of growth, or (5) the date of final sterile filtration of a bulk solution, whichever is applicable.

PART 620—ADDITIONAL STANDARDS FOR BACTERIAL PRODUCTS

2. In Part 620, as follows:

a. In § 620.14, by revising paragraph (c)(2) and adding paragraph (c)(3) to read as follows:

§ 620.14 General requirements.

* * * * *

(c) * * *

(2) A protocol that consists of a summary of the history of manufacture of each lot including all results of each test for which test results are requested by the Director, Bureau of Biologics.

(3) The product shall not be issued by the manufacturer until written notification of official release of each filling lot of dried vaccine and of each bulk lot of aqueous vaccine is received from the Director, Bureau of Biologics.

b. In § 620.24, by revising paragraph (c)(2) and adding paragraph (c)(3) to read as follows:

§ 620.24 General requirements.

* * * * *

(c) * * *

(2) A sample of no less than 40 milliliters of the final product distributed in approximately equal amounts into four final containers.

(3) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

c. In § 620.35, by revising paragraph (e)(3) to read as follows:

§ 620.35 General requirements.

* * * * *

(e) * * *

(3) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

PART 630—ADDITIONAL STANDARDS FOR VIRAL VACCINES

3. In Part 630, as follows:

a. In § 630.66, by revising paragraph (e)(3) to read as follows:

§ 630.66 General requirements.

* * * * *

(e) * * *

(3) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

b. In § 630.75, by revising paragraph (d)(2) to read as follows:

§ 630.75 General requirements.

* * * * *

(d) * * *

(2) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

c. In § 630.86, by revising paragraph (e)(3) to read as follows:

§ 630.86 General requirements.

* * * * *

(e) * * *

(3) The product shall not be issued by the manufacturer until written notification of official release of each filling of each lot is received from the Director, Bureau of Biologics.

PART 640—ADDITIONAL STANDARDS FOR HUMAN BLOOD AND BLOOD PRODUCTS

4. In Part 640 by adding new Subpart H and new Subpart I, to read as follows:

Subpart H—Normal Serum Albumin (Human)

Sec.

640.80 Normal Serum Albumin (Human).
640.81 Processing.
640.82 Tests on final product.
640.83 General requirements.
640.84 Labeling.
640.85 Samples; protocols; official release.
640.86 Equivalent methods.

AUTHORITY: Sec. 351, 58 Stat. 702, as amended (42 U.S.C. 262).

Subpart H—Normal Serum Albumin (Human)

§ 640.80 Normal Serum Albumin (Human).

(a) *Proper name and definition.* The proper name of the product shall be Normal Serum Albumin (Human). The product is defined as a sterile solution of the albumin component of human blood.

(b) *Source material.* The source material of Normal Serum Albumin (Human) shall be blood, plasma, serum or placentas from human donors determined at the time of donation to have been free from disease-causative agents that are not destroyed or removed by the processing method, as determined by the medical history of the donor and from such physical examination and clinical tests as may appear necessary for each donor at the time the blood was obtained. Where source material is a product for which additional standards are effective, the requirements of those additional standards shall determine the propriety of the source material for use in the production of Normal Serum Albumin (Human). Where no additional standards are effective with respect to source material for the production of Normal Serum Albumin (Human), such source material shall:

(1) Be collected by a procedure which is designed to assure the integrity and to minimize the risk of contamination of the source material. The manufacturer of Normal Serum Albumin (Human) shall ensure that the collection procedure shall be as described in its license.

(2) Be identified to relate it accurately to the individual donor and the dates of collection.

(3) Not contain a preservative.

(4) Be stored and transported in a manner designed to prevent contamination by microorganisms, pyrogens, or other impurities.

(c) *Additives in source material.* Source material shall not contain an additive unless it is shown that the processing method yields a final product free of the additive to such extent that the continued safety, purity, potency, and effectiveness of the final product will not be adversely affected.

§ 640.81 Processing.

(a) *Date of manufacture.* The date of manufacture shall be the date of final sterile filtration of a uniform pool of bulk solution.

(b) *Processing method.* The processing method shall not affect the integrity of the product, and shall have been shown to yield consistently a product which is safe for intravenous injection.

(c) *Microbial contamination.* All processing steps shall be conducted in a manner to minimize the risk of contamination from either microorganisms or other deleterious matter. Preservatives to inhibit growth of microorganisms shall not be used during processing.

(d) *Storage of bulk fraction.* Bulk concentrate to be held more than 1 week prior to further processing shall be stored in clearly identified closed vessels at a temperature of −5° C or colder. Any other bulk form of the product, exclusive of the sterile bulk solution, to be held more than 1 week prior to further processing shall be stored in clearly identified closed vessels at a temperature of 5° C or colder. Any bulk fraction to be held one week or less prior to further processing shall be stored in clearly identified closed vessels at a temperature of 5° C or colder.

(e) *Heat treatment.* Heating of the final containers of Normal Serum Albumin (Human) shall begin within 24 hours after completion of filling. Heat treatment shall be conducted so that the solution is heated for not less than 10 or more than 11 hours at an attained temperature of 60°±0.5° C.

(f) *Stabilizer.* Either 0.16 millimole sodium acetyltryptophanate, or 0.08 millimole sodium acetyltryptophanate and 0.08 millimole sodium caprylate shall be added per gram of albumin as a stabilizer.

(g) *Incubation.* All final containers of Normal Serum Albumin (Human) shall be incubated at 20° to 35° C for at least 14 days following the heat treatment prescribed in paragraph (e) of this section. At the end of this incubation period, each final container shall be examined and all containers showing any indication of turbidity or microbial contamination shall not be issued. The contents

of turbid final containers shall be examined microscopically and tested for sterility. If growth occurs, organisms shall be identified as to genus, and the material from such containers shall not be used for further manufacturing.

§ 640.82 Tests on final product.

Tests shall be performed on the final product to determine that it meets the following standards:

(a) *Protein content.* The final product shall conform to one of the following concentrations: 4.0±0.25 percent; 5.0±0.30 percent; 20.0±1.2 percent; and 25.0±1.5 percent solution of protein.

(b) *Protein composition.* At least 96 percent of the total protein in the final product shall be albumin, as determined by a method that has been approved for each manufacturer by the Director, Bureau of Biologics, Food and Drug Administration.

(c) *Hydrogen ion concentration.* The pH shall be 6.9±0.5 when measured in a solution of the final product diluted to a concentration of 1 percent protein with 0.15 molar sodium chloride.

(d) *Sodium content.* The sodium content of the final product shall be 130 to 160 milliequivalents per liter.

(e) *Heme content.* The absorbance at 403 nanometers of a solution of the final product diluted to a concentration of 1 percent protein in a cell with a 1-centimeter light path shall not exceed 0.25.

(f) *Heat stability.* A final container sample of Normal Serum Albumin (Human) shall remain unchanged, as determined by visual inspection, after heating at 57° C for 50 hours, when compared to its control consisting of a sample, from the same lot, which has not undergone this heating.

§ 640.83 General requirements.

(a) *Preservative.* The final product shall not contain a preservative.

(b) *Storage of bulk solution.* After all processing steps have been completed, the sterile bulk solution shall be stored in a manner that will ensure the continued sterility of the product, and at a temperature that shall not exceed the recommended storage temperature of the final product prescribed in § 610.53 of this chapter.

§ 640.84 Labeling.

In addition to the labeling requirements of §§ 610.60, 610.61, and 610.62 of this chapter,

(a) The container and package labels shall contain the following information:

(1) The osmotic equivalent in terms of plasma, and the sodium content in terms of a value or a range in milliequivalents per liter;

(2) The caution "DO NOT USE IF TURBID OR MORE THAN 4 HOURS AFTER THE CONTAINER HAS BEEN ENTERED" placed in a prominent position on the label;

(3) The need for additional fluids when 20 percent or 25 percent albumin is administered to a patient with marked dehydration;

(4) The protein content, expressed as a 4 percent, 5 percent, 20 percent, or 25 percent solution.

(b) The type of source material, expressed as venous plasma, placental plasma, or both, used to manufacture the final product shall appear on either the container or package label or in the package insert.

§ 640.85 Samples; protocols; official release.

For each filling of each lot of Normal Serum Albumin (Human), the following material shall be submitted to the Director, Bureau of Biologics, Food and Drug Administration, Building 29A, 8800 Rockville Pike, Bethesda, MD 20014:

(a) A sample consisting of no less than 100 milliliters of product in at least two final containers intended for distribution.

(b) A protocol which consists of a complete summary of the history of manufacture of each filling, including the following items:

(1) A brief description of any reprocessing of bulk or final container material because of failure to pass required tests.

(2) The results of all required tests, including initial and repeat tests performed on bulk and final container material.

(3) A description of any heating steps on the bulk and on final container material other than that required in § 640.81(e), including the reasons for the heating and the results of such heating.

(4) The total number of vials filled, the fill volume of the vials and, if more than one fill volume is used, the total number of vials filled for each fill volume.

(5) The total number of rejected filled vials, including the vials rejected for turbidity, and the results of the tests performed on the turbid vials.

(c) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics, Food and Drug Administration.

§ 640.86 Equivalent methods.

Modification of any particular manufacturing method or process or the conditions under which it is conducted, as set forth in these additional standards for Normal Serum Albumin (Human), shall be permitted only upon the submission by the manufacturer to the Director, Bureau of Biologics, Food and Drug Administration, of substantial evidence demonstrating that the modification will assure the continued safety, purity, potency, and effectiveness of Normal Serum Albumin (Human) to an extent equal to or greater than the methods or processes provided in §§ 640.80 through 640.85, and after the equivalent method has received the written approval of the Director, Bureau of Biologics, Food and Drug Administration.

Subpart I—Plasma Protein Fraction (Human)

Sec.
640.90 Plasma Protein Fraction (Human).
640.91 Processing.
640.92 Tests on final product.
640.93 General requirements.
640.94 Labeling.
640.95 Samples; protocols; official release.
640.96 Equivalent methods.

AUTHORITY: Sec. 351, 58 Stat. 702, as amended (42 U.S.C. 262).

Subpart I—Plasma Protein Fraction (Human)

§ 640.90 Plasma Protein Fraction (Human).

(a) *Proper name and definition.* The proper name of the product shall be Plasma Protein Fraction (Human). The product is defined as a sterile solution of protein composed of albumin and globulin, derived from human blood.

(b) *Source material.* The source material of Plasma Protein Fraction (Human) shall be blood, plasma, or serum from human donors determined at the time of donation to have been free from disease-causative agents that are not destroyed or removed by the processing method, as determined by the medical history of the donor and from such physical examination and clinical tests as may appear necessary for each donor at the time the blood was obtained. When source material is a product for which additional standards are effective, the requirements of those additional standards shall determine the propriety of the material for use in the production of Plasma Protein Fraction (Human). When no additional standards are effective with respect to source material for the production of Plasma Protein Fraction (Human), such source material shall:

(1) Be collected by a procedure which is designed to assure the integrity and to minimize the risk of contamination of the source material. The manufacturer of Plasma Protein Fraction (Human) shall ensure that the collection procedure shall be as described in its license;

(2) Be identified to relate it accurately to the individual donor and to the dates of collection;

(3) Not contain a preservative; and

(4) Be stored and transported in a manner designed to prevent contamination by microorganisms, pyrogens, or other impurities.

(c) *Additives in source material.* Source material shall not contain an additive unless it is shown that the processing method yields a final product free of the additive to such extent that the continued safety, purity, potency, and effectiveness of the final product will not be adversely affected.

§ 640.91 Processing.

(a) *Date of manufacture.* The date of manufacture shall be the date of final sterile filtration of a uniform pool of bulk solution.

(b) *Processing method.* The processing method shall not affect the integrity of the product, and shall have been shown to yield consistently a product which:

(1) After the heating prescribed in paragraph (e) of this section does not show an increase in the components with electrophoretic mobility similar to that of alpha globulin that amounts to more than 5 percent of the total protein.

(2) Contains less than 5 percent protein with a sedimentation coefficient greater than 7.0 S.

(3) Is safe for intravenous injection.

(c) *Microbial contamination.* All processing steps shall be conducted in a manner to minimize the risk of contamination from either microorganisms or other deleterious matter. Preservatives to inhibit growth of microorganisms shall not be used during processing.

(d) *Storage of bulk fraction.* Bulk concentrate to be held more than 1 week prior to further processing shall be stored in clearly identified closed vessels at a temperature of −5° C or colder. Any other bulk form of the product (exclusive of the sterile bulk solution) to be held more than 1 week prior to further processing, shall be stored in clearly identified closed vessels at a temperature of 5° C or colder. Any bulk fraction to be held one week or less prior to further processing shall be stored in clearly identified closed vessels at a temperature of 5° C or colder.

(e) *Heat treatment.* Heating of the final containers of Plasma Protein Fraction (Human) shall begin within 24 hours after completion of filling. Heat treatment shall be conducted so that the solution is heated for not less than 10 or more than 11 hours at an attained temperature of 60°±0.5° C.

(f) *Stabilizer.* Either 0.16 millimole sodium acetyltryptophanate, or 0.08 millimole sodium acetyltryptophanate and 0.08 millimole sodium caprylate shall be added per gram of protein as a stabilizer.

(g) *Incubation.* All final containers of Plasma Protein Fraction (Human) shall be incubated at 20° to 35° C for at least 14 days following the heat treatment prescribed in paragraph (e) of this section. At the end of this incubation period, each final container shall be examined and all containers showing any indication of turbidity or microbial contamination shall not be issued. The contents of turbid final containers shall be examined microscopically and tested for sterility. If growth occurs, the types of organisms shall be identified as to genus and the material from such containers shall not be used for further manufacturing.

§ 640.92 Tests on final product.

Tests shall be performed on the final product to determine that it meets the following standards:

(a) *Protein content.* The final product shall be a 5.0±0.3 percent solution of protein.

(b) *Protein composition.* The total protein in the final product shall consist of at least 83 percent albumin, and no more than 17 percent globulins. No more than 1 percent of the total protein shall be gamma globulin. The protein composition shall be determined by a method that has been approved for each manufacturer by the Director, Bureau of Biologics, Food and Drug Administration.

(c) *Hydrogen ion concentration.* The pH shall be 7.0±0.3 when measured in a solution of the final product diluted to a concentration of 1 percent protein with 0.15 molar sodium chloride.

(d) *Sodium content.* The sodium content of the final product shall be 130 to 160 milliequivalents per liter.

(e) *Potassium content.* The potassium content of the final product shall not exceed 2 milliequivalents per liter.

(f) *Heat stability.* A final container sample of Plasma Protein Fraction (Human) shall remain unchanged, as determined by visual inspection, after heating at 57° C for 50 hours, when compared to its control consisting of a sample, from the same lot, which has not undergone this heating.

§ 640.93 General requirements.

(a) *Preservative.* The final product shall not contain a preservative.

(b) *Storage of bulk solution.* After all processing steps have been completed, the sterile bulk solution shall be stored in a manner that will ensure the continued sterility of the product, and at a temperature that shall not exceed the recommended storage temperature of the final product prescribed in § 610.53 of this chapter.

§ 640.94 Labeling.

In addition to the labeling requirements of §§ 610.60, 610.61, and 610.62 of this chapter, the container and package labels shall contain the following information:

(a) The osmotic equivalent in terms of plasma, and the sodium content in terms of a value or a range in milliequivalents per liter.

(b) The caution "DO NOT USE IF TURBID OR MORE THAN 4 HOURS AFTER THE CONTAINER HAS BEEN ENTERED" placed in a prominent position on the label.

§ 640.95 Samples; protocols; official release.

For each filling of each lot of Plasma Protein Fraction (Human), the following material shall be submitted to the Director, Bureau of Biologics, Food and Drug Administration, Building 29A, 8800 Rockville Pike, Bethesda, MD 20014:

(a) A sample consisting of no less than 100 milliliters of product in at least two final containers intended for distribution.

(b) A protocol which consists of a complete summary of the history of manufacture of each filling, including the following items:

(1) A brief description of any reprocessing of bulk or final container material because of failure to pass required tests.

(2) The results of all required tests, including initial and repeat tests performed on bulk and final container material.

(3) A description of any heating steps on the bulk and on final container material other than that required in § 640.91(e), including the reasons for the heating and the results of such heating.

(4) The total number of vials filled, the fill volume of the vials and, if more than one fill volume is used, the total number of vials filled for each fill volume.

(5) The total number of rejected filled vials, including the vials rejected for turbidity, and the results of the tests performed on the turbid vials.

(c) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics, Food and Drug Administration.

§ 640.96 Equivalent methods.

Modification of any particular manufacturing method or process, or the conditions under which it is conducted, as set forth in the additional standards for Plasma Protein Fraction (Human), shall be permitted only upon the submission by the manufacturer to the Director, Bureau of Biologics, Food and Drug Administration, of substantial evidence demonstrating that the modification will assure the continued safety, purity, potency, and effectiveness of Plasma Protein Fraction (Human) to an extent equal to, or greater than, the methods or processes provided in §§ 640.90 through 640.95, and after the equivalent method has received the written approval of the Director, Bureau of Biologics, Food and Drug Administration.

PART 650—ADDITIONAL STANDARDS FOR DIAGNOSTIC SUBSTANCES FOR DERMAL TESTS

5. In Part 650, as follows:

a. In § 650.6, by revising paragraph (b) and adding paragraph (c) to read as follows:

§ 650.6 Samples; protocols; official release.

* * * * *

(b) A sample of no less than 20 milliliters of the product.

(c) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

b. In § 650.11, by revising paragraph (c)(4) and adding paragraph (c)(5) to read as follows:

§ 650.11 General requirements.

* * * * *

(c) * * *

(4) Sufficient dried tuberculin in final containers so that upon reconstitution as recommended in labeling it will yield at least 20 milliliters.

(5) The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

PART 660—ADDITIONAL STANDARDS FOR DIAGNOSTIC SUBSTANCES FOR LABORATORY TESTS

6. In Part 660, as follows:

a. In § 660.2, by revising paragraph (f) (1) (iii) to read as follows:

§ 660.2 General requirements.

* * * * *

(f) * * *

(1) * * *

(iii) The product shall not be issued by the manufacturer until written notification of official release of each filling of each lot is received from the Director, Bureau of Biologics.

* * * * *

b. In § 660.15, paragraph (c) is revised and paragraph (d) is added to read as follows:

§ 660.15 Samples, protocols, official release.

* * * * *

(c) *Protocols.* A protocol which consists of a summary of the history of manufacture of each lot, including all results of all tests required by regulations, shall be submitted for each lot of product to be released.

(d) *Release.* The product shall not be issued by the manufacturer until written notification of official release of the lot is received from the Director, Bureau of Biologics.

Effective date. This regulation shall be effective August 28, 1977 except for the labeling requirements. All labeling for Normal Serum Albumin (Human) and Plasma Protein Fraction (Human) shall comply with §§ 640.84 and 640.94, respectively, on or before November 28, 1977.

(Sec. 351, 58 Stat. 702 as amended (42 U.S.C. 262))

NOTE.—The Food and Drug Administration has determined that this document does not contain a major proposal requiring preparation of an inflation impact statement under Executive Order 11821 and OMB Circular A-107. A copy of the inflation impact assessment is on file with the Hearing Clerk, Food and Drug Administration.

Dated: May 3, 1977.

WILLIAM F. RANDOLPH,
Acting Associate Commissioner for Compliance.

[FR Doc.77-15423 Filed 5-27-77;8:45 am]

Title 33—Navigation and Navigable Waters

CHAPTER IV—SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION, DEPARTMENT OF TRANSPORTATION

PART 401—SEAWAY REGULATIONS

Metric System of Measurement and Miscellaneous Amendments

AGENCY: Saint Lawrence Seaway Development Corporation, DOT.

ACTION: Final rule.

SUMMARY: This rule amends the Seaway Regulations. These amendments are intended to make the Regulations comply with the policy of the Metric Conversion Act of 1975 which is to coordinate and plan the increasing use of the metric system in the United States.

EFFECTIVE DATE: May 31, 1977.

ADDRESS: Saint Lawrence Seaway Development Corporation, P.O. Box 520, Massena, New York 13662.

FOR FURTHER INFORMATION CONTACT:

Frederick A. Bush, General Counsel, 315-764-0271, Ext. 245, author of the amendments.

SUPPLEMENTARY INFORMATION: On March 18, 1977 (42 FR 15077), the FEDERAL REGISTER published proposed amendments to the Seaway Regulations (33 CFR Part 401) pertaining to the metric system of measurement and other miscellaneous revisions. The proposal added the metric equivalents as the primary system of measurement, supplemented by the English measurements. No actual measurements are being changed in this initial phase of metric conversion. Additionally, the proposal deleted specific reference to Form SLS 429, The St. Lawrence Seaway Application for Vessel Preclearance, to allow revisions to be made to the form without amending the Seaway Regulations. Also a change in the distance between signs and movable bridges was made in § 401.51 to conform to the actual distance.

In response to the Corporation's request for public comment, two were received. Both respondents suggested that the method of conversion chosen by the Corporation was unnecessarily precise and not altogether convenient.

One commenter also suggested that the use of the prefix "deci" should be discouraged and that the use of a comma in metric measurements was erroneous due to the fact that several other countries use the comma as a decimal marker when using the metric system. The comments were carefully considered and as pertains to the use of a precise metric conversion, it was stated that during the initial transition period of metric conversion, when both metric and English measures are expressed, the equivalence of the two units should be preserved by a precise conversion. In the final period of metric conversion, further determinations will be made regarding rounding off and the use of convenient metric measurements.

With respect to the comment referring to the use of the prefix "deci", the commenter was advised that the Corporation's use of the prefix is consistent with channel depth units to be used by both American and Canadian hydrological agencies and that the use of a certain prefix dependent upon its application is recognized and accepted by the American National Standards Institute.

The comment that the comma should not be used pointed out a discrepancy in the Corporation's proposal which is being revised accordingly.

The Corporation has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107.

Since these amendments do not require any action by interested parties but are substantially informational in nature, I find that good cause exists for making them effective in less than 30 days. Therefore, pursuant to the authority contained in 33 U.S.C. 981 et seq., the Saint Lawrence Seaway Act, and the authority vested in the Secretary of Transportation with respect to the St. Lawrence Seaway under the Ports and Waterways Safety Act of 1972 (Pub. L. 92-340, 86 Stat. 424), which authority was subsequently delegated to the Administrator of the Saint Lawrence Seaway Development Corporation in the FEDERAL REGISTER on October 17, 1972 (37 FR 21942), the Seaway Regulations are amended as follows:

* * * * *

1. In § 401.3 paragraphs (a) and (b) are amended to read as follows:

§ 401.3 Maximum vessel dimensions.

(a) No vessel of more than 222.50 meters (730 feet) in overall length or 23.16 meters (76 feet) in extreme breadth, including permanent fenders, shall transit.

(b) No vessel shall transit if any part of the vessel or anything on the vessel extends more than 35.66 meters (117 feet) above water level.

* * * * *

2. Section 401.4 is amended to read as follows:

§ 401.4 Minimum length and weight.

No vessel of less than 6.10 meters (20 feet) in overall length or 907.18 kilograms (1 ton) in weight shall transit.

3. Section 401.6 is amended to read as follows:

§ 401.6 Draft markings.

(a) Vessels of more than 19.81 meters (65 feet) in overall length shall be correctly and distinctly marked and equipped with draft markings on both sides at the bow and stern.

(b) In addition to the markings required by paragraph (a) of this section, vessels of more than 106.68 meters (350 feet) in overall length shall be marked on both sides with midship draft markings.

4. Section 401.8 is amended to read as follows:

§ 401.8 Landing booms.

Vessels of more than 45.72 meters (150 feet) in overall length shall be equipped with at least one adequate landing boom on each side.

5. Section 401.9 is amended to read as follows:

§ 401.9 Radiotelephone equipment.

(a) Self-propelled vessels, other than pleasure craft of less than 19.81 meters (65 feet) shall be equipped with VHF (very high frequency) radiotelephone equipment.

(b) The radio transmitters on a vessel shall

(1) Have sufficient power output to enable the vessel to communicate with Seaway stations from a distance of 48.28 kilometers (30 miles); and

* * * * *

6. Section 401.10(a)(2) and (c) is amended to read as follows:

§ 401.10 Mooring lines.

(a) Mooring lines shall

* * * * *

(2) be fitted with a spliced eye not less than 2.44 meters (8 feet) long;

* * * * *

(c) * * *

Table

Ship's overall length	Length of mooring line	Breaking strength
38.10 m to 60.96 m (125 ft to 200 ft)	109.73 m (360 ft)	88.96 kN (10 tons).
61.26 m to 91.44 m (201 ft to 300 ft)	do	133.45 kN (15 tons).
91.74 m to 121.92 m (301 ft to 400 ft)	do	177.93 kN (20 tons).
122.22 m to 182.88 m (401 ft to 600 ft)	do	249.10 kN (28 tons).
183.18 m to 222.50 m (601 ft to 730 ft)	do	311.38 kN (35 tons).

7. Section 410.12 is amended to read as follows:

§ 401.12 Minimum requirements—mooring lines and fairleads.

(a) Minimum requirements in respect to mooring lines and winches and the location of fairleads on vessels are as follows:

(1) Vessels of 38.10 meters (125 feet) or less in overall length shall have at least two mooring lines or hawsers that may be led through closed chocks and be hand held, one of which shall lead from the break of the bow and the other shall lead from the quarter;

(2) Vessels of more than 38.10 meters (125 feet) but not more than 60.96 meters (200 feet) in overall length shall have four mooring lines, two of which shall be power operated by winches, capstans or windlasses and shall be led through a type of fairlead acceptable to the Corporation and the Authority, of which two mooring lines

* * * * *

(3) The other two mooring lines required on vessels of more than 38.10 meters (125 feet) but not more than 60.96 meters (200 feet) may be led through closed chocks and may be hand held;

(4) Vessels of more than 60.96 meters (200 feet) in overall length shall have four mooring lines, two of which shall lead from the break of the bow and two of which shall lead from the quarter, and

* * * * *

(b) The following table sets out the requirements for the location of fairleads for vessels of 60.96 meters (200 feet) or more in overall length:

Table

Overall length of vessels in meters	For mooring lines No. 1 and 2	For mooring lines No. 3 and 4
60.96 m to 91.44 m (200 ft to 300 ft)	Between 9.14 m and 24.38 m (30 ft and 80 ft) from the stem.	Between 9.14 m and 24.38 m (30 ft and 80 ft) from the stern.
91.44 m to 121.92 m (300 ft to 400 ft)	Between 12.19 m and 30.48 m (40 ft and 100 ft) from the stem.	Between 15.24 m and 33.53 m (50 ft and 110 ft) from the stern.
121.92 m to 152.40 m (400 ft to 500 ft)	Between 12.19 m and 33.53 m (40 ft and 110 ft) from the stem.	Between 15.24 m and 39.62 m (50 ft and 130 ft) from the stern.
152.40 m to 182.88 m (500 ft to 600 ft)	Between 15.24 m and 39.62 m (50 ft and 130 ft) from the stem.	Between 18.29 m and 45.72 m (60 ft and 150 ft) from the stern.
182.88 m to 222.50 m (600 ft to 730 ft)	Between 18.29 m and 48.77 m (60 ft and 160 ft) from the stem.	Between 21.34 m and 51.82 m (70 ft and 170 ft) from the stern.

8. In § 401.13 paragraph (b) is amended to read as follows:

§ 401.13 Hand lines.

Hand lines shall:

* * * * *

(b) Have a minimum diameter of 12.70 millimeters (½ inch) and a minimum length of 30.48 meters (100 feet).

9. Section 401.14 is amended to read as follows:

§ 401.14 Anchor marking buoys.

An orange colored anchor marking buoy of a type approved by the Corporation and the Authority, fitted with 22.86 meters (75 feet) of suitable line, shall be secured directly to each anchor so that the buoy will mark the location of the anchor when the anchor is dropped.

10. Section 401.15 is amended to read as follows:

§ 401.15 Stern anchors.

Every vessel of more than 106.88 meters (350 feet), the keel of which is laid after January 1, 1975, shall be equipped with a stern anchor.

11. The introductory text of § 401.16 is amended to read as follows:

§ 401.16 Propeller direction alarms.

Every vessel of more than 79.25 meters (260 feet) in overall length shall be equipped with —

* * * * *

12. The introductory text of § 401.21 is amended to read as follows:

§ 401.21 Rudder angle indicators.

Every vessel of more than 79.25 meters (260 feet) in overall length shall be equipped with rudder angle indicators or repeaters that are—

* * * * *

13. Section 401.22(a) is amended to read as follows:

§ 401.22 Preclearance of vessels.

(a) No vessel, other than a pleasure craft of 317.52 metric tons (350 tons) or less in weight shall transit until an application for preclearance has been made, pursuant to § 401.24, to the Corporation or the Authority by the vessel's representative and the application has been approved by the Corporation or the Authority pursuant to § 401.25.

* * * * *

14. Section 401.24 is revised to read as follows:

§ 401.24 Application for preclearance.

The representative of a vessel may, on a form obtained from the Corporation, Massena, New York, or the Authority, Cornwall, Ontario, apply for preclearance, giving particulars of the ownership, liability insurance and physical characteristics of the vessel and guaranteeing payment of the tolls and charges that may be incurred by the vessel.

15. Section 401.28(a) is amended to read as follows:

§ 401.28 Speed limits.

(a) The maximum speed over the bottom for a vessel of more than 12.19 meters (40 feet) in overall length shall be regulated so as not to adversely affect other vessels or shore property, and in no event shall such a vessel proceeding in an area between the place set out in Column I of an item of Schedule I and the place set out in Column II of that item exceed the speed set out in Column III or Column IV of that item, whichever is designated by the Corporation and the Authority from time to time as being appropriate to existing water levels.

* * * * *

16. Section 401.29 is amended to read as follows:

§ 401.29 Maximum draft.

(a) The loading, draft and speed of a vessel in transit shall be controlled by the master, who shall take into account the vessel's individual characteristics and its tendency to list or squat, so as to avoid striking bottom.[1]

(b) The draft of a vessel shall not, in any case, exceed 79.25 decimeters (26 feet) or the maximum permissible draft designated by the Corporation or the Authority for the part of the Seaway in which a vessel is passing.

(c) No vessel shall transit the Sault Ste. Marie (Canada) Canal with a draft in excess of the maximum permissible draft currently prescribed by the Authority for that Canal or unless the available depth of water on the appropriate controlling point for draft exceeds by at least 7.62 centimeters (3 inches) the maximum draft of the vessel at the time.

[1] The main channels between the Port of Montreal and Lake Erie have a controlling depth of 8.23 meters (27 feet).

17. Section 401.31(c) is amended as follows:

§ 401.31 Meeting and passing.

* * * * *

(c) Except as instructed by the vessel traffic controller, no vessel shall overtake and pass or attempt to overtake and pass another vessel—

(1) * * *

(2) Within 609.60 meters (2000 feet) of a canal entrance;

* * * * *

18. Section 401.35 is amended as follows:

§ 401.35 Employment of tugs.

No tug shall be fastened alongside a vessel in a canal so that the aggregate of the beams exceeds—

(a) 16.76 meters (55 feet) in the case of the Sault Ste. Marie (Canada) Canal; or

(b) 23 meters (75 feet 6 inches) in the case of any other canal.

19. Section 401.42 is amended to read as follows:

§ 401.42 Passing hand lines.

(a) At locks, hand lines shall be secured to the mooring lines and passed as follows:

* * * * *

(2) Hand lines shall be passed to upbound vessels by the linesmen as soon as the vessel passes the open gates, and secured, by means of a clove hitch, to the mooring lines 61 centimeters (2 feet) behind the splice of the eye; and

* * * * *

20. The table in § 401.48 is amended to read as follows:

§ 401.48 Turning basins.

* * * * *

TABLE

* * * * *

2. Welland Canal:

(a) Turning Basin No. 1—Opposite St. Catherines Wharf for vessels up to 106.68 meters (350 feet).

(b) Turning Basin No. 2—Between Lock 7 and Guard Gate for vessels up to 182.88 meters (600 feet).

(c) * * *

(d) Turning Basin No. 4—North of Lock No. 8 for vessels up to 167.64 meters (550 feet).

(e) For vessels up to 79.25 meters (260 feet):

* * * * *

21. Section 401.51 is amended to read as follows:

§ 401.51 Signalling approach to a bridge.

Unless a vessel's approach has been recognized by a flashing red signal light, three distinct blasts shall be sounded on the vessel's whistle when it comes abreast of any of the bridge whistle signs, which signs shall be placed at distances varying between 670.56 meters and 1,500 meters (2,200 feet and 4,921 feet) upstream and downstream from movable bridges at sites other than lock sites.

22. Section 401.65(a)(1) is revised to read as follows:

§ 401.65 Communication—ports, docks and anchorages.

(a) * * *

(1) Toronto and Hamilton—0.87 of a nautical mile (1 mile) outside of harbor limits; and

* * * * *

23. In § 401.67 (b) and (c) are revised to read as follows:

§ 401.67 Explosive vessels.

A vessel carrying:

* * * * *

(b) More than 9.07 metric tons (10 tons) of explosives that do not explode en masse; or

(c) More than 90.72 metric tons (100 tons) of explosives having a fire hazard with minor or no explosive effect, shall be deemed for the purposes of these Regulations to be an explosive vessel.

24. Section 401.68 is amended by revising paragraphs (a) (1), (2) and (3) to read as follows.

§ 401.68 Explosives permit.

(a) * * *

(1) 1.81 metric tons (2 short tons) of explosives with mass explosive risk;

(2) 45.36 metric tons (50 short tons) of explosives that do not explode en masse; or

(3) 453.59 metric tons (500 short tons) of explosives having a fire hazard without explosive effect.

* * * * *

25. In § 401.69, paragraphs (b) (1) through (11) are revised as follows:

§ 401.69 Hazardous cargo vessels.

A vessel that is:

* * * * *

(b) * * *

(1) 45.36 metric tons (50 tons) of gases, compressed, liquified or dissolved under pressure.

(2) 45.36 metric tons (50 tons) of inflammable liquids of the low flashpoint group,

(3) 45.36 metric tons (50 tons) of organic peroxides,

(4) 90.72 metric tons (100 tons) of oxidizing substances,

(5) 90.72 metric tons (100 tons) of inflammable liquids of the intermediate flashpoint group,

(6) 90.72 metric tons (100 tons) of inflammable solids or spontaneously combustible substances,

(7) 90.72 metric tons (100 tons) of substances emitting inflammable gases when wet,

(8) 90.72 metric tons (100 tons) of poisonous substances,

(9) 90.72 metric tons (100 tons) of infectious subtances,

(10) 181.44 metric tons (200 tons) of corrosive substances, or

(11) 453.59 metric tons (500 tons) of inflammable liquids of the high flashpoint group,

shall be deemed for the purposes of the regulations in this part to be a hazardous cargo vessel.

26. In § 401.74 paragraph (a) is revised to read as follows:

§ 401.74 Transit declaration.

(a) The Seaway Transit Declaration Form (Cargo and Passenger), which may be obtained from the Corporation, Massena, New York, or from the Authority, Cornwall, Ontario, shall be forwarded to the Corporation or the Authority by the representative of every vessel, other than a pleasure craft of not more than 317.52 metric tons (350 tons), within fourteen days after the vessel first enters the Seaway on any upbound or downbound voyage.

* * * * *

27. Section 401.82 is revised to read as follows:

§ 401.82 Reporting mast height.

A vessel, any part of which extends more than 33.53 meters (110 feet) above water level shall not transmit any part of the Seaway until precise information concerning the height of the vessel has been furnished to the Seaway station.

28. Schedule I, *The St. Lawrence Seaway Application for Vessel Pre-Clearance*, is deleted.

29. Schedule II is renumbered Schedule I and is revised to read as follows:

SCHEDULE I.—*Table of Speeds*[1]

From	To	Maximum speed over the bottom, knots	
		Col. III	Col. IV
Upper Entrance South Shore Canal.	Lake St. Louis Buoy 13A	10.4 (12 mi/h)	10.4 (12 mi/h).
Lake St. Louis Buoy 13A	Lower Entrance Beauharnois Lock.	15.5 (18 mi/h)	15.5 (18 mi/h).
Upper Entrance Beauharnois Lock Buoy 5B.	Lake St. Francis Buoy 27F	8.6 (10 mi/h upb) 10.4 (12 mi/h dnb)	8.6 (10 mi/h upb). 10.4 (12 mi/h dnb).
Lake St. Francis Buoy 27F	Lake St. Francis Buoy 87F	15.5 (18 mi/h)	15.5 (18 mi/h).
Lake St. Francis Buoy 87F	Snell Lock	8.6 (10 mi/h upb) 10.4 (12 mi/h dnb)	7.7 (9 mi/h upb). 10.4 (12 mi/h dnb).
Eisenhower Lock	Richards Point Light 55	11.3 (13 mi/h)	10.4 (12 mi/h).
Richards Point Light 55	Morrisburg Buoy 84	13.0 (15 mi/h)	10.4 (12 mi/h).
Morrisburg Buoy 84	Ogden Island Buoy 99	11.3 (13 mi/h)	10.4 (12 mi/h).
Ogden Island Buoy 99	Blind Bay ½ mile east of Light 162	13.0 (15 mi/h)	10.4 (12 mi/h).
Blind Bay ½ mile east of Light 162	Deer Island Light 186	11.3 (13 mi/h)	10.4 (12 mi/h).
Deer Island Light 186	Bartlett Point Light 227	8.6 (10 mi/h upb) 10.4 (12 mi/h dnb)	7.7 (9 mi/h upb). 10.4 (12 mi/h dnb).
Bartlett Point Light 227	Tibbetts Point	13.0 (15 mi/h)	10.4 (12 mi/h).
Junction of Canadian Middle Channel and Main Channel abreast of Ironsides Island.	Open waters between Wolfe and Howe Islands through the said Middle Channel.	9.5 (11 mi/h)	9.5 (11 mi/h).
Lock 1, Welland Canal	Outer Piers, Port Weller Harbor	7.7 (9 mi/h)	7.7 (9 mi/h).
Port Robinson	Ramey's Bend through the Welland Bypass.	7.7 (9 mi/h)	7.7 (9 mi/h).
All other canals		6.1 (7 mi/h)	6.1 (7 mi/h).

[1] Maximum speeds at which a vessel may travel in identified areas in both normal and high water conditions are set forth in this schedule. The Corporation and the Authority shall, from time to time, designate the set of speed limits which is in effect. The maximum speeds set forth in the schedule shall always be subject to specific instruction to a particular vessel.

(68 Stat. 92-97, 33 U.S.C. 981-990, as amended and Sec. 104, Pub. L. 92-340, 86 Stat. 424, 49 CFR 1.50a (37 FR 21943).)

30. Schedule III, Calling-In Table, is renumbered Schedule II.

31. Schedule IV, regarding pleasure craft tickets, is renumbered Schedule III.

(68 Stat. 92-97, 33 U.S.C. 981-990, as amended and Sec. 104, Pub. L. 92-340, 86 Stat. 424, 49 CFR 1.50a (37 FR 21943).)

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION,
D. W. OBERLIN,
Administrator.

[FR Doc.77-15030 Filed 5-27-77;8:45 am]

Title 39—Postal Service

CHAPTER I—U.S. POSTAL SERVICE

PART 601—PROCUREMENT OF PROPERTY AND SERVICES

Change of Address of Regional Branch

AGENCY: Postal Service.

ACTION: Final rule.

SUMMARY: The Regional Contract and Supply Management Branch for the Southern Region has changed its physical location. The purpose of this regulation change is to reflect that fact.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

William Jones (202-245-4603).

Accordingly, 39 CFR Part 601 is amended as follows:

§ 601.104 [Amended]

In paragraph (a) of § 601.104 strike out "Southern Region, 5100 Poplar Avenue, Clark Tower Building, Memphis, TE 38166" and insert the following in lieu thereof: "Southern Region, Mid-Memphis Tower, 1407 Union Avenue, Memphis, TN 38166".

(5 U.S.C. 552(a); 39 U.S.C. 401.)

ROGER P. CRAIG,
Deputy General Counsel.

[FR Doc.77-15354 Filed 5-27-77;8:45 am]

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

[FRL 738-7]

SUBCHAPTER C—AIR PROGRAMS

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Ohio-Sulfur Dioxide Plan

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: This final rule is an amendment to the federally promulgated Ohio State Implementation Plan for Sulfur Dioxide. The amendment is a result of comments made in response to an Order for reconsideration issued by the United States Court of Appeals for the Sixth Circuit on November 12, 1976 in *Buckeye Power, Inc., et al.* v. *Environmental Protection Agency*, No. 76-2090 et al.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

Jack Chicca, Chief, Air Programs Branch, Region V, U.S. Environmental Protection Agency, 230 South Dearborn, Chicago, Ill. 60604.

SUPPLEMENTARY INFORMATION: On August 27, 1976, the U.S. Environmental Protection Agency promulgated a regulation for the control of sulfur dioxide in Ohio (41 FR 36324). Corrections to the plan were made on November 30, 1976 (41 FR 52455). Thirty-six petitions for review were filed with the United States Court of Appeals for the Sixth Circuit pursuant to Section 307 of the Clean Air Act Amendments of 1970. Following a prehearing conference on motions to stay, the Court on November 12, 1976, entered a stay of enforcement of the regulation for petitioners and ordered the Agency to (i) reopen the administrative record, allowing petitioners to further comment on the regulation, and (ii) amend the regulations as necessary. This notice sets forth those amendments to the regulation justified by petitioners' comments.

The Agency received forty-two individual comments. The Agency considered all of the comments and supporting materials and reevaluated the regulation in light of this information. The Agency determined that the changes set forth in this action were warranted based on computational or transpositional errors in the original data base. The Agency's analysis of the comments is set forth in a supplemental technical support document (STSD), dated May 27, 1977. This analysis reflects the Administrator's judgments on the appropriateness and meritoriousness (or lack thereof) of the comments and is incorporated herein by this reference. The STSD is available at the USEPA Public Information Reference Unit, Rm. 2922, 401 M Street SW., Washington, D.C. 20460. It may also be obtained (or inspected) at the USEPA Region V office, Air and Hazardous Materials Division, Eleventh Floor, 230 S. Dearborn, Chicago, Illinois.

The Agency has reconsidered the appropriate attainment date and compliance schedules for those sources subject to the period of reconsideration and attendant stay of enforcement granted by the Court of Appeals and has determined that the appropriate attainment date for all petitioners listed in § 52.1875 footnote f should now be three years from June 17, 1977. This date was derived as follows: First, it was recognized that, under § 110(a)(2) of the Act, attainment of the primary standards may be no later than three years from the date of promulgation. For those sources affected by the Court's order of November 12, 1976, the Agency considered a promulgation date of May 27, 1977. It was on this date that the Agency issued its response to the comments provided for by the Court's order, thereby finalizing the rulemaking for these sources. However, this would have ignored the fact that the Court's order delayed the effectiveness of the regulations for a period extending 21 days beyond the Agency's response.

Taking these 21 days into account and given the unusual circumstances of this case, the Agency concluded that a promulgation date of June 17, 1977, was appropriate. Three years from this date is June 17, 1980.

For petitioners only, the Agency is removing from the fossil fuel-fired steam-generating unit compliance schedule the eight-week requirement for electing the intended mode of compliance. Instead, petitioners will have 17 weeks to make this election. It is the expectation of the Agency that this additional time will enable such sources to make a more informed judgment as to whether compliance should be achieved through fuel adjustments, e.g., the burning of low sulfur coal, or the use of mechanical coal washing or coal blending, or through pollution control equipment such as scrubbers. (A similar revision is not required for petitioning process sources since such sources are not confronted with the need to make an election.) The removal of this increment does not affect the ability to comply with the final compliance date since it is expected that research and, perhaps, preliminary design work on all viable options will be taking place while petitioners are deciding which option to choose. As is the case with the new attainment date being established for such sources, the new compliance schedules applicable to them will not begin to run until June 17, 1977. To reflect this, a new paragraph has been added to § 52.1882.

In addition, the Agency gives notice to those sources electing to comply by use of low sulfur fuel that it is the enforcement policy of the Agency to require sources that elect to comply with the regulation by switching to low sulfur coal to show that they will remain in compliance with Ohio's State Plan for particulate matter. The attainment date for particulate matter is April 15, 1977. This policy is necessitated by the fact that under certain conditions switching to low sulfur coal normally increases particulate emissions and requires upgrading controls for particulate matter.

The Administrator has determined that the amended regulation remains consistent with current EPA policies and meets the goals set forth in section 110 (c) of the Clean Air Act Amendments of 1970 and Agency regulations in 40 CFR Part 51.

(42 U.S.C. 1857c-5.)

Dated: May 24, 1977.

DOUGLAS M. COSTLE,
Administrator.

Part 52 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

Subpart KKK—Ohio

1. In § 52.1875, the attainment dates for sulfur dioxide in the table are revised for petitioners in *Buckeye Power, Inc. et al. v. U.S. Environmental Protection Agency*. This revision is reflected in footnote "f" to the table.

§ 52.1875 Attainment dates for national standards.

* * * * *

f. August 27, 1979 except for the following companies which are subject to an attainment date of June 17, 1980:

Ashland Oil, Inc.; Youngstown Sheet & Tube Co.; PPG Industries, Inc.; Wheeling-Pittsburgh Steel Corp.; Pittsburgh-Canfield Corporation; The Timken Company; The Sun Oil Co.; Sheller-Globe Corp.; The B. F. Goodrich Company; Phillips Petroleum Co.; Shell Oil Co.; Federal Paper Board Co., Inc.; The Firestone Tire & Rubber Co.; Republic Steel Corp.; Chase Bag Co.; White-Westinghouse Corp.; U.S. Steel Corp.; Interlake, Inc.; Austin Powder Co.; Diamond Crystal Salt Co.; The Goodyear Tire & Rubber Co.; The Gulf Oil Co.; The Standard Oil Co.; Champion International Corp.; Koppers Co., Inc.; General Motors Corp.; E. I. duPont de Nemours and Co.; Coulton Chemical Corp.; Allied Chemical Corp., Specialty Chemicals Division; The Hoover Co.; Aluminum Co. of America; Ohio Greenhouse Assoc.; Armco Steel Corp.; (Buckeye Power, Inc.; Cincinnati Gas and Electric; Cleveland Electric Illuminating Co.; Columbus and Southern Ohio Electric; Dayton Power and Light Co.; Columbus and Southern Ohio Electric; Dayton Power and Light Co.; Duquesne Light Co.; Ohio Edison Co.; Ohio Electric Co.; Ohio Power Co.; Pennsylvania Power Co.; Toledo Edison Co.

2. Section 52.1881(b) is amended as follows:

§ 52.1881 Control strategy: Sulfur dioxide

* * * * *

(b) Regulations for the control of sulfur dioxide in the State of Ohio.

(1) Definition * * *

(iii) "Fossil fuel" means natural gas, refinery fuel gas, coke oven gas, petroleum, coal and any form of solid, liquid, or gaseous fuel derived from such materials.

* * * * *

(14) In Athens County:

* * * * *

(ii) The Columbus and Southern Ohio Power Company or any subsequent owner or operator of the Poston Power Plant in Athens County, Ohio shall not cause or permit the emission of sulfur dioxide from stacks 1 and 2 at the Poston Plant in excess of 3.72 pounds of sulfur dioxide per million BTU actual heat input. Stack number 3 is subject to New Source Performance Standards and is limited to 1.2 pounds of sulfur dioxide per million BTU of actual heat input.

(iii) In lieu of meeting subparagraph (14)(ii), the Columbus and Southern Ohio Power Company may elect in accordance with the compliance schedule provisions of § 52.1882, to comply with the emission limitations which will satisfy all of the following equations:

(A) $0.1932\ EL_1 + 0.0757\ EL_2 \leq 1$
(B) $0.1369\ EL_2 + 0.1276\ EL_3 \leq 1$
(C) $0.1230\ EL_1 + 0.1406\ EL_3 \leq 1$

where EL_i is the emission limitation (in pounds of sulfur dioxide per million BTU of actual heat input) per stack i, and i is the stack number. For purposes of this regulation, each stack is identified as follows:

Stack No.:	*Boiler identification*
1	1, 2
2	3, 4
3	5, 6

* * * * *

(17) In Butler County:

(i) No present or subsequent owner or operator, unless otherwise specified in this subparagraph, of any fossil fuel-fired steam generating unit(s) located in Butler County, Ohio shall cause or permit sulfur dioxide emissions from any stack in excess of 1.40 pounds of sulfur dioxide per million BTU actual heat input.

(ii) No present or any subsequent owner or operator, unless otherwise specified in this subparagraph, of a by-product coke oven located in Butler County, Ohio, shall cause or permit the combustion of by-product coke oven gas containing a total sulfur content expressed as hydrogen sulfide in excess of 100 grains of hydrogen sulfide per 100 dry standard cubic feet of coke oven gas or the emission of sulfur dioxide from any stack at this facility in excess of 0.50 pounds of sulfur dioxide per million BTU actual heat input.

(iii) The Armco Steel Company or any subsequent owner or operator of the Armco Steel-Hamilton Plant located in Butler County, Ohio shall cause or permit the combustion of by-product coke oven gas containing a total sulfur content expressed as hydrogen sulfide in excess of 146 grains of hydrogen sulfide per 100 dry standard cubic feet of coke oven gas or the emission of sulfur dioxide from any stack at this facility in excess of 0.73 pounds of sulfur dioxide per million BTU actual heat input.

(iv) The Armco Steel Company or any subsequent owner or operator of the Armco Steel-Middletown Plant located in Butler County, Ohio shall not cause or permit emissions of sulfur dioxide from fossil fuel-fired steam generating units numbered B001, B002, B003, and B004 in excess of 2.11 pounds of sulfur dioxide per million BTU actual heat input and from fossil fuel-fired steam generating units numbered B007, B008, B009, and B010 in excess of 1.79 pounds of sulfur dioxide per million BTU actual heat input.

(v) The Champion Paper Company or any subsequent owner or operator of the Champion Paper facilities located in Butler County, Ohio shall not cause or permit emissions of sulfur dioxide from fossil fuel-fired steam-generating units numbered B010 and B020 in excess of 3.43 pounds of sulfur dioxide per million BTU actual heat input.

* * * * *

(21) In Coshocton County: (i) The Columbus and Southern Ohio Power Company or any subsequent owner or operator of the Conesville Plant in Coshocton County, Ohio shall not cause or permit the emission of sulfur dioxide from any of the stacks 1, 2, and 3 at the Conesville Plant in excess of 5.66 pounds of sulfur dioxide per million BTU actual heat input. Stack 4 at the Conesville Plant is subject to New Source Performance Standards and is limited to 1.2 pounds of sulfur dioxide per million BTU actual heat input.

(ii) In lieu of meeting subparagraph (21)(i), the Columbus and Southern Ohio Power Company may elect for stacks 1, 2, and 3 only, in accordance with the compliance schedule provision of § 52.1882, to comply with the emission limitations which will satisfy all of the following equations:

(A) $0.0677\ EL_1 + 0.0411\ EL_2 + 0.0065\ EL_3 \leq 1$
(B) $0.0707\ EL_1 + 0.0730\ EL_2 + 0.0011\ EL_3 \leq 1$
(C) $0.0823\ EL_1 + 0.0767\ EL_2 + 0.0013\ EL_3 \leq 1$
(D) $0.0565\ EL_1 + 0.0337\ EL_2 + 0.0886\ EL_3 \leq 1$
(E) $0.0401\ EL_1 + 0.0683\ EL_2 + 0.0026\ EL_3 \leq 1$
(F) $0.0410\ EL_1 + 0.1021\ EL_2 + 0.0\ \ EL \leq 1$

where EL_i is the emission limitation (pounds per million BTU) per stack i, and i is the stack number. For purposes of this regulation each stack is identified as follows:

Stack No.:	Boiler Identification
1	1, 2
2	3
3	4
4	5, 6

* * * * *

(30) In Hamilton County:

* * * * *

(iv) No owner or operator of any fluidized catalytic cracking unit located in Hamilton County, Ohio shall cause or permit sulfur dioxide emissions from any unit in excess of 0.78 pounds of sulfur dioxide per thousand pounds of charging feed stock.

* * * * *

(39) In Lucas County: * * *

* * * * *

(iii) The Toledo Edison Company or any subsequent owner or operator of the Bayshore Station in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at the Bayshore Station in excess of the rates specified below:

(A) 1.20 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units burning coal.

(B) 0.50 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units burning oil.

(iv) Standard Oil of Ohio or any subsequent owner or operator of the Standard Oil of Ohio facility located in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at this facility in excess of the rates specified below:

(A) 0.29 pounds of sulfur dioxide per million BTU actual heat input for all process heaters and fossil fuel-fired steam-generating units unless otherwise specified in this subparagraph.

(B) 1.00 pounds of sulfur dioxide per million BTU actual heat input for process heaters or fossil fuel-fired steam-generating units numbered B024.

(C) 0.50 pounds of sulfur dioxide per million BTU actual heat input for process heater or fossil fuel-fired steam-generating unit number B021.

(D) 0.57 pounds of sulfur dioxide per million BTU actual heat input for process heaters of fossil fuel-fired steam-generating units numbered B009, B010, B018, B020, B023, and B025.

(E) 0.92 pounds of sulfur dioxide per 1,000 pounds of charging stock for catalytic cracking units and CO boilers connected to a common stack.

(F) 0.40 pounds of sulfur dioxide per ton of actual process weight input for any process.

(v) [Reserved]

(vi) The Coulton Chemical Company or any subsequent owner or operator of the Coulton Chemical facility in Lucas County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at the Coulton Chemical facility in excess of the rates specified below:

(A) 0.80 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units or process heaters.

(B) 1.10 pounds of sulfur dioxide per ton of 100 percent sulfuric acid produced for sulfuric acid production units.

(vii) The Toledo Edison Company or any subsequent owner or operator of the Acme Power Plant in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack in excess of the rates specified below:

(A) 3.00 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units burning coal.

(B) 1.00 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units burning oil.

(viii) Gulf Oil or any subsequent owner or operator of the Gulf Oil facility in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at the Gulf Oil facility in excess of the rates specified below:

(A) 0.81 pounds of sulfur dioxide per million BTU actual heat input for process heaters or fossil fuel-fired steam-generating units numbered B001, B002, B003, B004, B005, B006, B007, and B008.

(B) 0.60 pounds of sulfur dioxide per million BTU actual heat input for process heater or fossil fuel-fired steam-generating unit B009.

(C) 0.50 pounds of sulfur dioxide per million BTU actual heat input for process heater or fossil fuel-fired steam-generating unit B013.

(D) 0.40 pounds of sulfur dioxide per million BTU actual heat input for process heaters or fossil fuel-fired steam-generating unit B014.

(E) 1.85 pounds of sulfur dioxide per 1,000 pounds of charging stock for catalytic cracking units and CO boilers connected to the same stack.

(F) 200 pounds of sulfur dioxide per 1,000 pounds of sulfur processed for sulfur recovery plants.

(G) Gulf Oil or any subsequent owner or operator of facilities located in Lucas County, Ohio shall not cause or permit the combustion of refinery fuel gas at process heaters or fossil fuel gas-fired steam-generating units numbered B010, B011, B012, B015, B017, B018, 8019, and B020 containing a total sulfur content expressed as hydrogen sulfide in excess of 10 grains of hydrogen sulfide per 100 dry standard cubic feet of refinery fuel gas or the emission of sulfur dioxide from any stack at the above units in excess of 0.04 pounds of sulfur dioxide per million BTU actual heat input.

(H) Gulf Oil or any subsequent owner or operator of the Gulf Oil facilities located in Lucas County, Ohio shall operate only one of the units numbered B001, B002, B003 and B004 simultaneously with units numbered B005, B006 or B016.

(ix) The Toledo Edison Company or any subsequent owner or operator of the Water Street Steam Plant in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at the Water Street Station in excess of 1.06 pounds of sulfur dioxide per million BTU actual heat input.

(x) Phillips Petroleum Company or any subsequent owner or operator of the Toledo Philblack Plant in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at the Toledo Philblack Plant in excess of the rates specified below:

(A) 4.67 pounds of sulfur dioxide per million BTU actual heat input for any process dryer.

(B) 4.99 pounds of sulfur dioxide per million BTU actual heat input for all fossil fuel-fired steam-generating units, processes and incinerator unless otherwise specified in this subparagraph.

(xi) Interlake Steel or any subsequent owner or operator of the Interlake Steel facility in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at this facility in excess of the rates specified below:

(A) 0.10 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units.

(B) 4.00 pounds of sulfur dioxide per ton of actual process weight input for any process.

* * * * *

(xiv) Sun Oil or any subsequent owner or operator of the Sun Oil facility in Lucas County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at the Sun Oil facility in excess of the rates specified below:

(A) Unless otherwise specified in this subparagraph, the combustion of refinery fuel gas containing a total sulfur content expressed as hydrogen sulfide in excess of 10 grains of hydrogen sulfide per 100 dry standard cubic feet of refinery fuel gas or the emission of sulfur dioxide from any stack at this facility in excess of 0.04 pounds of sulfur dioxide per million BTU actual heat input.

(B) 0.0 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units or process operation heaters numbered 502, 504, 1901, 1902, 1903, 1904, 1905, and 1906.

(C) 3.50 pounds of sulfur dioxide per 1,000 pounds of charging stock for catalytic cracking units and CO boilers connected to the same stack.

(D) 1.60 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating units or process heaters numbered 301, 304, 507, 508, and 1910 and 113.4 pounds of sulfur dioxide per 1,000 pounds of sulfur processed for sulfur recovery plants.

(E) In lieu of compliance with subparagraph (D) of this subparagraph in accordance with section 52.1882(b)(4), Sun Oil or any subsequent owner or operator of the Sun Oil facility in Lucas County, Ohio may elect the following emission limitations: 1.00 pounds of sulfur dioxide per million BTU actual heat input for

fossil fuel-fired steam-generating units or process heaters numbered 301, 304, 507, 508 and 1910 and 200 pounds of sulfur dioxide per 1,000 pounds of sulfur processed for sulfur recovery plants.

* * * * *

(40) In Mahoning County, no owner or operator, unless otherwise specified in this subparagraph, shall cause or permit the emission of sulfur dioxide in excess of the rates specified below:

* * * * *

(iii) No owner or operator shall cause or permit the combustion of by-product coke oven gas from any stack containing a total sulfur content expressed as hydrogen sulfide in excess of 135 grains hydrogen sulfide per 100 dry standard cubic feet of coke oven gas or the emission of sulfur dioxide from any stack in excess of 0.68 pounds of sulfur dioxide per million BTU actual heat input.

* * * * *

(vii) The Koppers Company or any subsequent owner or operator of the Koppers Company facilities located in Mahoning County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at Koppers Company in excess of 2.00 pounds of sulfur dioxide per million BTU actual heat input.

* * * * *

(47) In Morgan County:

* * * * *

(ii) In lieu of meeting subparagraph (47)(i), the Ohio Power Company may elect, in accordance with the compliance schedule provisions of § 52.1882, to comply with the emission limitations which will satisfy all the following equations:

(A) $0.0773\ EL_1+0.0622\ EL_2 \leq 1$
(B) $0.0640\ EL_1+0.0902\ EL_2 \leq 1$

where EL_i is the emission limitation (pounds per million BTU) per stack i, and i is the stack number. For purposes of this regulation each stack is identified as follows:

Stack No.	*Boiler identification*
1	1, 2, 3, 4
2	5

* * * * *

(51) In Pickaway County:

(i) The Columbus and Southern Ohio Power Company or any subsequent owner or operator of the Picway Power Plant in Pickaway County, Ohio, shall not cause or permit the emission of sulfur dioxide from any stack at the Picway plant in excess of 6.04 pounds sulfur dioxide per million BTU actual heat input.

(ii) In lieu of meeting subparagraph (51)(i), the Columbus and Southern Ohio Power Company may elect, in accordance with the compliance schedule provision of § 52.1882, to comply with the emission limitations which will satisfy all of the following equations:

(A) $0.0764\ EL_1+0.0759\ EL_2+0.0133\ EL_3 \leq 1$
(B) $0.0487\ EL_1+0.0484\ EL_2+0.0522\ EL_3 \leq 1$

where EL_i is the emission limitation (pounds per million BTU) per stack i, and i is the stack number. For purpose of this regulation each stack is identified as follows:

Stack No.:	*Boiler identification*
1	3
2	4
3	5

* * * * *

(58) For Starck County:

* * * * *

(vi) The present or any subsequent owner or operator of the Timken Steel Company facilities in Starck County, Ohio shall not cause or permit the emission of sulfur dioxide from any fossil fuel-fired steam generating unit(s) stack at this facility in excess of the rates specified below:

(A) 3.08 pounds of sulfur dioxide per million BTU actual heat input for the stack common to the fossil fuel-fired steam-generating units B001 and B002 at the Gambrinus plant.

(B) 0.93 pounds of sulfur dioxide per million BTU actual heat input for the fossil fuel-fired steam-generating unit B003 at the Gambrinus plant.

(C) 0.0 pounds of sulfur dioxide per million BTU actual heat input for the fossil fuel-fired steam-generating units B003 and B004 at the Canton Number 5 Plant.

(D) 0.67 pounds of sulfur dioxide per million BTU actual heat input for fossil fuel-fired steam-generating at the Canton Number 5 Plant unless otherwise specified in this subparagraph.

* * * * *

(ix) The Ashland Oil Company, or any subsequent owner or operator of the Ashland Oil Company facilities in Stark County, Ohio shall not cause or permit sulfur dioxide emissions from any stack at this facility in excess of the emission limitations listed below for the different sources.

(A) 1.20 pounds of sulfur dioxide per million BTU actual heat input to the stacks identified by Ashland Oil Company as 4–16–B–11 and 4–9–B–6.

(B) 0.47 pounds of sulfur dioxide per million BTU actual heat input for all process heaters and fossil fuel-fired steam-generating units unless otherwise specified in this subparagraph.

(C) 0.84 pounds of sulfur dioxide per 1,000 pounds of charging stock for catalytic cracking units.

(D) 50 pounds of sulfur dioxide per 1,000 pounds of sulfur processed for sulfur recovery plants.

(59) In Summit County, * * *

* * * * *

(vi) The present or subsequent owner or operator of the Sieberling Rubber Company facilities in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at this facility in excess of 1.33 pounds of sulfur dioxide per million BTU actual heat input.

(vii) The present or subsequent owner or operator of the Firestone Tire and Rubber Company facilities in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at this facility in excess of 1.78 pounds of sulfur dioxide per million BTU actual heat input.

(viii) The present or subsequent owner or operator of the B. F. Goodrich Tire and Rubber Company facilities in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at this facility in excess of 2.71 pounds of sulfur dioxide per million BTU actual heat input.

(ix) The Goodyear Tire and Rubber Company or any subsequent owner or operator of the Goodyear facilities in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack in excess of the rates specified below:

(A) 3.96 pounds of sulfur dioxide per million Btu actual heat input for fossil fuel-fired steam-generating unit B001 located at Plant I.

(B) 1.80 pounds of sulfur dioxide per million Btu actual heat input for fossil fuel-fired steam-generating units B002 and B003 located at Plant I.

(C) 1.84 pounds of sulfur dioxide per million Btu actual heat input for all fossil fuel-fired steam-generating units located at Plant II.

(D) 100 pounds of sulfur dioxide per 1,000 pounds of sulfur processed for the sulfur recovery unit(s).

* * * * *

(xi) The Ohio Edison Company or any subsequent owner or operator of the Ohio Edison Company's Beech Street Power Station in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at the Beech Street Plant in excess of 2.71 pounds of sulfur dioxide per million Btu actual heat input.

(xii) The Ohio Edison Company or any subsequent owner or operator of the Ohio Edison Company's Gorge Plant in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack at the Gorge Plant in excess of 2.56 pounds of sulfur dioxide per million Btu actual heat input.

* * * * *

(xiv) PPG Industries or any subsequent owner or operator of the PPG Industries facilities located in Summit County, Ohio shall not cause or permit the emission of sulfur dioxide from any stack in excess of the rates specified below:

(A) 1.78 pounds of sulfur dioxide per million Btu actual heat input for fossil fuel-fired steam-generating unit(s).

(B) 0.0 pounds of sulfur dioxide per ton actual process weight input for the kilns.

(60) In Trumbull County:

* * * * *

(iii) The Republic Steel Company or any subsequent owner or operator of the Republic Steel facilities in Trumbull County, Ohio shall not cause or permit the emission of sulfur dioxide from fossil fuel-fired steam-generating unit number B001 in excess of 1.60 pounds of sulfur dioxide per million Btu actual heat input and from process operation P001 in excess of 1.00 pounds of sulfur dioxide per million Btu of actual heat input.

(iv) Republic Steel Corporation or any subsequent owner or operator of the Republic Steel facilities in Trumbull County, Ohio shall not cause or permit the combustion of by-product coke oven gas containing a total sulfur content expressed as hydrogen sulfide in excess of 300 grains of hydrogen sulfide per 100 dry standard cubic feet of coke oven gas or 1.52 lbs. SO_2/MMBtu actual heat input.

* * * * *

(63) In Washington County:

* * * * *

(ii) In lieu of meeting subparagraph (63)(i), the Ohio Power Company may elect, in accordance with the compliance schedule provisions of § 52.1882, to comply with the emission limitations which will satisfy all the following equations:

(A) $0.0773\ EL_1 + 0.0622\ EL_2 \leq 1$
(B) $0.0640\ EL_1 + 0.0902\ EL_2 \leq 1$

where EL_i is the emission limitation (pounds per million BTU) per stack i, and i is the stack number. For purposes of this regulation each stack is identified as follows:

Stack No.:	*Boiler identification*
1	1, 2, 3, 4
2	5

3. Section 52.1882 is amended by adding paragraph (b) as follows:

§ 52.1882 Compliance schedules.

* * * * *

(b) Federal compliance schedule for petitioners in *Buckeye Power, Inc. et al v. USEPA*, No. 76-2090 et al.

(1) Except as provided in paragraph (b)(5) of this section, the owner or operator of any process equipment subject to applicable subparagraphs of § 52.1881(b) shall comply with the compliance schedule in paragraph (a)(2) of this section.

(2) Any owner or operator of any process equipment subject to applicable paragraphs of § 52.1881(b) of the Chapter shall take the following actions to comply with the requirements of said regulation with respect to that source no later than the date specified.

(i) 8 weeks from June 17, 1977: Submit preliminary control plans to the Administrator.

(ii) 25 weeks from June 17, 1977: Submit final control plan to the Administrator.

(iii) 34 weeks from June 17, 1977: Award contracts for emissions control systems or process modification, or issue orders for purchase of component parts to accomplish emission control or process modification and notify the Administrator in writing that such action was taken.

(iv) 52 weeks from June 17, 1977: Initiate on-site construction or installation of emission control equipment or process change and notify the Administrator in writing that such action was taken.

(v) 139 weeks from June 17, 1977: Complete construction or installation of emission control equipment or process change and notify the Administrator in writing that such action was taken.

(vi) 154 weeks from June 17, 1977: Complete shakedown operations and performance test on source, submit performance test results to the Administrator and achieve final compliance with § 52.1881(b) of this chapter, as applicable.

(3) Except as provided in subparagraph (5) of this paragraph, the owner or operator of any stack venting any fossil fuel-fired steam generating unit(s) subject to § 52.1881(b) of this chapter shall comply with the applicable compliance schedule in paragraph (a)(4) of this section.

(4)(i) The Owner or operator of any stack venting any fossil fuel-fired steam generating unit(s) or process subject to § 52.1881(b) of this chapter who elects to comply with an applicable optional emission limitation specified in § 52.1881(b) of this chapter, shall notify the Administrator no later than 17 weeks after June 17, 1977 of the specific emission limitations selected. Failure to select applicable optional emission limitations shall result in the facility being subject to the single uniform emission limitation for all stacks at that facility specified in § 52.1881(b). Notice received later than 17 weeks after June 17, 1977 shall be invalid.

(ii) The owner or operator of any fossil fuel-fired steam generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter shall notify the Administrator no later than 17 weeks after June 17, 1977 of his intent to utilize either low-sulfur fuel including blended or washed coal or flue gas desulfurization to comply with the requirements of said regulation.

(iii) Any owner or operator of any stack venting any fossil fuel-fired steam generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter who elects to utilize low sulfur fuel including blended or washed coal to comply with the requirements of said regulation shall take the following actions with respect to that source no later than the date specified:

(A) 17 weeks after June 17, 1977: Submit to the Administrator a projection for ten years of the amount of fuel by types that will be substantially adequate to enable compliance with § 52.1881(b) of this chapter, as applicable.

(B) 32 weeks from June 17, 1977: Submit data demonstrating the availability of the fuel meeting the requirements projected in subparagraph (a) to the Administrator.

(C) 36 weeks after June 17, 1977: Submit a statement to the Administrator as to whether boiler modifications will or will not be required. If modifications will be required, submit plans for such modifications.

(D) 50 weeks from June 17, 1977: Let contracts for necessary boiler modifications, if applicable, and notify the Administrator in writing that such action was taken.

(E) 60 weeks after June 17, 1977: Initiate on-site modifications, if applicable, and notify the Administrator in writing that such action was taken.

(F) 118 weeks from June 17, 1977: Complete on-site modification, if applicable, and notify the Administrator in writing that such action was taken.

(G) 122 weeks from June 17, 1977: Achieve final compliance with the emission limitation of § 52.1881(b) of this chapter, as applicable, and notify the Administrator in writing that such action was taken.

(iv) Any owner or operator of any stack venting any fossil fuel-fired steam generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter who elects to utilize flue gas desulfurization to comply with the requirements of said regulations shall take the following actions with respect to the source no later than the date specified.

(A) 17 weeks from June 17, 1977: Let necessary contracts for construction and notify the Administrator in writing that such action was taken.

(B) 61 weeks from June 17, 1977: Initiate on-site construction and notify the Administrator in writing that such action was taken.

(C) 145 weeks from June 17, 1977: Complete on-site construction and notify the Administrator in writing that such action was taken.

(D) 156 weeks from June 17, 1977: Complete shakedown operations and performance test on source, submit performance test results to the Administrator and achieve final compliance with § 52.1881(b) of this chapter, as applicable.

(5)(i) None of the preceding subparagraphs of this paragraph shall apply to any owner or operator of a source which is presently in compliance with the applicable subparagraphs of § 52.1881(b) of this chapter.

(ii) Any owner or operator of a source capable of emitting 100 tons of sulfur dioxide per year from all stacks at any facility who is presently in compliance with the applicable subparagraphs of § 52.1881(b) of this chapter shall so certify to the Administrator by four weeks from June 17, 1977.

(iii) Any owner or operator subject to a compliance schedule in this paragraph who elects to achieve compliance by means not covered by this paragraph may submit to the Administrator no later than six weeks from June 17, 1977, a proposed alternative compliance schedule. For process equipment subject to applicable subparagraphs of § 52.1881(b) of this chapter no such compliance schedule may provide for final compliance after the final compliance date in subparagraph (2) of this paragraph. For any stack venting any fossil fuel-fired steam-generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter, which will utilize low-sulfur fuel including blended or washed coal to comply with the requirements of said regulations, no such compliance schedule may provide for final compliance after final compliance date in subparagraph (4)(iii) of this paragraph. For any stack

venting any fossil fuel-fired steam-generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter, which will utilize flue gas desulfurization to comply with the requirements of said regulations, no such compliance schedule may provide for final compliance after the final compliance date in subparagraph (4)(iv) of this paragraph.

(iv) Any owner or operator of any process equipment subject to applicable subparagraphs of § 52.1881(b) of this chapter who submits an alternative compliance schedule pursuant to § 52.1882 (b)(5)(iii) of this chapter shall remain subject to the provisions of § 52.1882 (b)(2) of this chapter until the alternative schedule is approved by the Administrator.

(v) Any owner or operator of any stack venting any fossil fuel-fired steam-generating unit(s) subject to applicable subparagraphs of § 52.1881(b) of this chapter who submits an alternative compliance schedule pursuant to § 52.1882(b)(5)(iii) of this chapter shall remain subject to the provisions of § 52.1882(b)(4) of this chapter until the alternative schedule is approved by the Administrator.

(6) Nothing in this paragraph shall preclude the Administrator from promulgating a separate schedule for any source to which the application of the compliance schedules in paragraphs (d)(2) or (4) of this section fails to satisfy the requirements of § 51.15 (b) and (c) of this chapter.

[FR Doc.77-15355 Filed 5-27-77;8:45 am]

Title 45—Public Welfare

CHAPTER X—COMMUNITY SERVICES ADMINISTRATION

[CSA Notice 6132-2]

PART 1061—CHARACTER AND SCOPE OF SPECIFIC PROGRAMS

Subpart—Community Food and Nutrition Program

PROGRAM EMPHASIS

AGENCY: Community Services Administration.

ACTION: Interim rule.

SUMMARY: The Community Services Administration is publishing an interim rule affecting the Community Food and Nutrition Program policy published in the FEDERAL REGISTER on March 2, 1977 (Volume 42, No. 41, FR 12047). The text of the rule published for the Community Food and Nutrition Program provides for considering the wide variety of food and nutrition needs of low-income groups. Since the extent and nature of needs vary greatly between states, CSA will establish and publish annually specific program emphases for each state. It will be more efficient for applicants to prepare proposals consistent with statewide needs.

DATES: Comments on this interim rule must be received prior to June 30, 1977.

ADDRESS: Send all comments to: Robert C. Czapiewski, Office of Operations, Community Services Administration, 1200 19th Street, NW., Washington, D.C. 20506

FOR FURTHER INFORMATION CONTACT:

Robert C. Czapiewski (202) 254-5400.

SUPPLEMENTARY INFORMATION: Should comments be received and revisions warranted they will be published as amendments to this interim rule.

(Sec. 602, 78 Stat. 530 (42 U.S.C. 2942).)

GRACIELA (GRACE) OLIVAREZ,
Director.

45 CFR 1061.50 is amended to add the following:

§ 1061.50-15. Program emphases.

CSA will publish annually the Community Food and Nutrition Program emphases for each state in the FEDERAL REGISTER. Concurrent with publication of the emphases will be a notice that CSA is accepting applications which must be submitted in accordance with procedures outlined in 1061.50-12. All applications must be received within forty (40) calendar days following publication in the FEDERAL REGISTER. Only those proposals consistent with the published program emphases for the applicable state will be given consideration.

[FR Doc.77-15363 Filed 5-27-77;8:45 am]

Title 49—Transportation

CHAPTER II—FEDERAL RAILROAD ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. RP-1, Notice 2]

PART 211—RULES OF PRACTICE

Petitions for Reconsideration; Amended Procedures

AGENCY: Federal Railroad Administration, DOT.

ACTION: Amendment.

SUMMARY: The Federal Railroad Administration (FRA) is amending 49 CFR 211.29 to provide that, except for good cause shown, a petition for reconsideration must be submitted not later than 60 days after publication of the rule in the FEDERAL REGISTER, or 10 days prior to the effective date of the rule, whichever is the earlier. This amendment is designed to accommodate parties that desire to file petitions for reconsideration as to rules that have a protracted effective date.

EFFECTIVE DATE: June 1, 1977.

FOR FURTHER INFORMATION CONTACT:

Anne-Marie Hyland, Office of Chief Counsel, Federal Railroad Administration, Washington, D.C. 20590 (202-426-8836.

SUPPLEMENTARY INFORMATION:

BACKGROUND INFORMATION

On December 13, 1976, the Federal Railroad Administration (FRA) published in the FEDERAL REGISTER (41 FR 54181) a general revision of the rules of practice applicable to proceedings under the jurisdiction of FRA. These rules include a provision setting forth the procedures to be followed in the submission of a petition requesting the Federal Railroad Administrator to reconsider a final rule (49 C.F.R. 211.29). Such petitions must now be filed no later than 20 days after publication of the final rule in the FEDERAL REGISTER, unless good cause is shown as justification for a later filing. Since final rules may become effective as soon as 30 days after publication, FRA established the 20 day time period in order to allow sufficient time to determine whether the final rules should be stayed from becoming effective pending a determination on the petition for reconsideration.

On occasion, FRA also issues regulations which, because of their complexity or the industry's need to modify current equipment or operating practices, have a protracted effective date. In these cases, affected parties may require more than 20 days to analyze the rules, conduct whatever field investigation may be necessary, and prepare a complete petition for reconsideration. Rather than requiring preliminary petitions in order to preserve the right to complete a petition for reconsideration once all the necessary information is available, FRA believes it is appropriate to amend § 211.29 to address this situation. Therefore, FRA is amending § 211.29 to provide that, except for good cause shown, a petition must be submitted not later than 60 days after publication of the rule in the FEDERAL REGISTER or 10 days prior to the effective date of the rule, whichever is the earlier. It should be noted that, according to the terms of this section, the filing of a petition for reconsideration does not stay the effective date of a final rule (49 C.F.R. 211.29(d)). Unless the Administrator specifically determines that a stay should be granted, the rules becomes effective as provided in the FEDERAL REGISTER notice, and all parties are responsible for compliance therewith.

Since this amendment of Part 211 does not affect substantive rights or duties and pertain solely to procedures and practices before the FRA, notice and public procedures thereon are unnecessary.

In consideration of the foregoing, Part 211 of Title 49 of the Code of Federal Regulations is amended by revising paragraph (a) of § 211.29 to read as follows:

§ 211.29 Petitions for reconsideration of a final rule.

(a) Any person may petition the Administrator for reconsideration of any rule issued under this part. Except for good cause shown, such a petition must be submitted not later than 60 days after publication of the rule in the FEDERAL REGISTER, or 10 days prior to the effective date of the rule, whichever is the earlier. The petition must contain a brief statement of the complaint and an explanation as to why compliance with the rule is not possible, is not practicable, is unreasonable, or is not in the public interest.

* * * * *

(Secs. 6, 9, 80 Stat. 937, 944 (49 U.S.C. 1655, 1657); the statutes referred to in sec. 6(e)(1), (2), (3), 80 Stat. 939 (49 U.S.C. 1655); sec. 202, 84 Stat. 971 as amended by sec. 5(a) of Pub. L. 94-348 (45 U.S.C. 431); and § 149 of the regulations of the Office of the Secretary of Transportation, 49 CFR 1.49.)

Issued in Washington, D.C., on May 23, 1977.

BRUCE M. FLOHR,
Deputy Administrator.

[FR Doc.77-15315 Filed 5-27-77;8:45 am]

[Docket No. HS-4, Notice No. 7]

PART 228—HOURS OF SERVICE OF RAILROAD EMPLOYEES

Statement of Agency Policy and Interpretation on the Hours of Service Act, as Amended

AGENCY: Federal Railroad Administration (FRA), DOT.

ACTION: Final statement of agency policy and interpretation.

SUMMARY: This document amends Part 228 of Title 49, Code of Federal Regulations by adding at the end thereof an appendix setting forth the position of FRA on the requirements of the Hours of Service Act. The appendix is being published at this time for the following reasons: (1) To explain the position of FRA on certain of the amendments to the Act contained in the Federal Railroad Safety Authorization Act of 1976, Pub. L. No. 94-348; (2) to give the broadest possible notice concerning the policy of FRA on issues of construction and interpretation; and (3), to provide an educational tool for the use of those subject to the Act. Publication of this statement will apprise the public concerning the circumstances under which the agency will seek civil penalties against carriers subject to the Act.

EFFECTIVE DATE: This document is effective on May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

Principal Program Person: John A. McNally (202-426-9178); Principal Lawyer: Grady C. Cothen Jr. (202-426-8285).

SUPPLEMENTARY INFORMATION: On September 28, 1976, the Federal Railroad Administration (FRA) published in the FEDERAL REGISTER (41 FR 42692) a proposed statement of agency policy and interpretation concerning the Hours of Service Act, as amended, 45 U.S.C. 61-64b (hereinafter "Act"). Public comments were requested to be submitted by October 29, 1976. Subsequent notices extended the comment period through December 17, 1976 (see 41 FR 48163, November 2, 1976; 41 FR 52351, November 29, 1976; 41 FR 54047, December 10, 1976). FRA administers and enforces the Act under section 6(f)(3)(A) of the Department of Transportation Act (49 U.S.C. 1655(f)(3)(A)) and a delegation from the Secretary of Transportation (49 CFR 1.49(d)).

Having analyzed the comments received in light of the express purpose of the Act, its legislative history, case law, and prior administrative interpretations, FRA has decided to issue a final statement of agency policy and interpretations addressing two of the three broad categories of service covered by the Act, as well those provisions of the Act which apply to all covered service. The policy statement is issued in the form of an appendix to Part 228 of Title 49, Code of Federal Regulations. Part 228 consists of FRA regulations implementing the Hours of Service Act. The categories of service addressed in the final statement which appears below are (1) train and engine service (section 2 of the Act) and (2) the communication of train orders (section 3 of the Act).

FRA has issued a separate document setting forth interim interpretations concerning limitations on the hours of service of individuals engaged in installing, repairing or maintaining signal systems (section 3A of the Act) (42 FR 4464; January 25, 1977). The limitations on signal service were added by the Federal Railroad Safety Authorization Act of 1976. FRA believes that the unique circumstances associated with this new category of covered service raise a sufficient number of questions to warrant continued study.

Thirteen individuals or organizations submitted comments on Docket No. HS-4 which addressed topics within the scope of the present document. Many of the comments expressed disagreement with positions which are necessitated by long-standing administrative practice, by case law, by the explicit language of the statute, or by a combination of these factors. Therefore, the discussion of those comments will be brief and direct.

Several commenters noted that the function of interpretations is to provide guidance to persons subject to the Act and to the courts based on the informed judgment and experience of the agency. As the commenters pointed out, the issuance of interpretations is not an act of substantive or "legislative" rulemaking. However, it should be noted that in areas requiring the application of special knowledge and expertise the courts give significant weight to the agency judgment.

One commenter objected to publication of the interpretations in the Code of Federal Regulations based on the fact that they do not constitute an affirmative imposition of new substantive obligations. Appendix A as revised for final publication is clearly identified as a statement of agency policy and interpretation. FRA has decided to publish these interpretations in the Code as a means of achieving wider circulation and availability.

Another commenter raised the question of the applicability of the Act to service in Canada. The Act is offended at any time a carrier requires or permits an employee "to go, be, or remain on duty" in violation of the stated requirements. However, the United States has no jurisdiction to control conduct on foreign soil, as such. Thus, when a train crosses the Canadian border, its crew ceases to be subject to limitations on service imposed by United States law. However, when a train enters the United States from Canada, the train crew is immediately subject to the Act and all time spent on duty in Canada is counted in computing the appropriate periods of service and release. For example, if, on entering the United States while performing service as a brakeman, an employee had been on duty for 14 hours, the carrier would immediately become liable for a civil penalty for permitting the employee to remain on duty within the United States in contravention of the 12-hour limitation. The commenter suggested that FRA seek to resolve the issue of hours of service regulation in Canada through agreement with Canadian authorities or by recommending that industry and labor resolve the matter through collective bargaining. It is within the power and discretion of the Canadian government to provide for railroad safety within Canada, and it would be inappropriate for FRA to address this matter absent some demonstrated impact on railroad safety within the United States.

The following discussion relates to comments on the portion of the text entitled "Train and Engine Service":

Covered service. Several commenters challenged the proposed interpretation on covered service, with most of the objections centering on the issue of what is meant by the term "hostlers". The Act now provides for coverage of any "individual actually engaged in or connected with the movement of any train, including hostlers". Employees known as "outside hostlers" generally move locomotives between shops or engine terminals and other yard areas. Employees known as "inside hostlers" generally move locomotives within shop or repair areas. Since outside hostlers were considered by the Interstate Commerce Commission, FRA and the industry to be covered by the Act prior to the 1976 amendment which added the words "including hostlers", it is evident that Congress wished to establish as a matter of law that inside hostlers should be considered to be "connected with" the movement of trains.

The legislative materials on the coverage of hostlers and individuals engaged in signal service are not extensive, since no hearings were conducted on that aspect of the legislation. However, the House Committee on Interstate and Foreign Commerce stated:

> Section 4(c) of the bill adds two more crafts of employees under the hours of service protection. The two crafts are hostlers and signalmen. The primary functions of hostlers are to move engines into and out of the shop areas and to service the locomotives by adding water, sand, and fuel to them. H.R. Rep. No. 94-1166, 94th Cong., 2nd Sess. (1976) at page 12.

The dictionary definition of "hostler" includes "one who services a vehicle (as a locomotive or truck) or machine (as a crane)". "Webster's Seventh New Collegiate Dictionary" (Merriam-Webster 1967). Clearly Congress intended to

limit the hours of persons who move locomotives in association with servicing and repair. To argue that only outside hostlers are covered by the Act is to ignore these considerations: (1) Outside hostlers were covered prior to the 1976 amendment; (2) the common meaning of "hostler" includes inside hostlers; (3) all employees engaged in "hostling" have a direct role in the safety of railroad operations, i.e., the safe movement of rolling equipment.

Clearly persons who perform the usual functions associated with the title "inside hostler" are covered by the Act.

Limitations on hours. Several commenters expressed difficulty with the 24-hour concept as it is applied to aggregate service and required periods of release. The position set forth in the proposed interpretations is merely a recital of the position of FRA, the industry and railroad labor since revision of the Act in 1969. A very literal reading of the statute would require that the required 8-hour release period be within the "preceding twenty-four hours" described in section 2(a)(2) of the statute (45 U.S.C. 62(a)(2)) in every instance. That would mean that broken service would have to be distributed within the remaining 16 hours in every instance. (For instance, 4 hours on duty, 4 hours off duty—the minimum permitted—and 4 hours on duty.) After passage of the 1969 revision to the Act it was agreed by all interested parties that such a construction was unnecessarily restrictive and was not intended by Congress. In light of prior administration of the Act, the legislative body seemed to have had two objectives: (1) To prohibit service in excess of 12 hours either consecutively or in the aggregate and (2) to assure that an employee not be worked in broken service for more than 24 hours without receiving at least 8 consecutive hours off duty. Thus, FRA adopted a less restrictive reading of the statute which achieves those objectives. The only alternative to this reading is the literal, more restrictive reading.

One commenter noted that under the longstanding interpretation, which is repeated in the text below, an employee can be required to work a cycle of 8 hours on duty and 8 hours off duty for an indefinite period. FRA appreciates that this is the case. In fact, that kind of flexibility is the feature which, on a practical level, commended this approach to labor and the industry some years ago. It should be recalled that shorter hours are a proper subject for collective bargaining and that the 8-hour release affords what Congress deemed to be an appropriate period for rest after broken service or continuous service of less than 12 consecutive hours.

One commenter expressed concern at the use of the term "work tour". In the text below the term is used to describe a period of aggregate service preceded by and followed by a required 8 or 10-hour release. "Work tour" as used in the interpretations does not necessarily mean a discrete work assignment or "run". That is, for purposes of the interpretations a new work tour (and new 24-hour period) could begin after an 8 or 10-hour release at a designated terminal, even if more than one work assignment or run was accomplished during the work tour .

Duty time and effective periods of release: Designated terminals. Section 1 of the Act provides that train or engine service may be broken by a period of release of 4 or more hours at a designated terminal. Despite extensive correspondence and lengthy conferences between FRA and carrier officials over the past 5–6 years, a number of commenters persist in their view that the word "designated" either (1) is mere surplusage, (2) refers to unilateral action by the carrier, or (3) has no application to the commenter's own operating environment.

Construction of the term designated terminal has been the subject of litigation and it is the view of FRA that the matter has been definitely and finally resolved in the courts. As stated by the United States Court of Appeals for the Ninth Circuit, "we hold that the term 'designated terminal' as used in the Hours of Service Act, 45 U.S.C. 61(b)(3), refers to terminals designated in or under collective bargaining agreements." "United States v. The Atchison, Topeka and Santa Fe Ry.", 525 F. 2d 1184, 1190 (1975), cert denied 425 U.S. 992 (1976). Specifically, "the 'home' and 'away-from-home' terminals were the 'designated terminals' Congress had in mind", 552 F. 2d 1188. The appellate court specifically rejected the argument that if a terminal is designated as a release point for one or more crew assignments it is "designated" within the meaning of the Act for any crew assignment:

> "We think * * * that section 61(b)(3) refers to the "terminals" which are designated for the particular crew and run involved. The Santa Fe has advanced no reasons, and we can think of none, why a stop at any place with minimum facilities would be more conducive to rest just because it happened to be a "terminal" for other trains and other crews. And certainly to add that the place must be unilaterally designated by management would be to require a pointless formality. We think that Congress must have intended to require a bilateral designation process. 525 F. 2d 1189.

One commenter argued that this view might block the establishment of new runs, since the established points of release could not be inserted in collective bargaining agreements which are negotiated on a periodic basis. This concern ignores the language of the court and the FRA interpretation which explains that terminals may be designated "under" collective bargaining agreements. That is, employee representatives and carrier officials may agree by letter or memorandum what the proper points of release shall be. All that is required is that the terminals agreed upon by the parties, whether they be two or three or six in number, provide adequate facilities for food and lodging. To avoid confusion and unnecessary FRA involvement, such letters or memoranda executed in the future should explicitly refer to the fact that the designation process is intended to identify appropriate points of release under the Hours of Service Act for specific crew assignments.

One commenter was concerned that the FRA intends to displace the collective bargaining process with respect to the determination of which terminals provide suitable facilities for food and lodging. FRA is interested in this issue only with respect to compliance with the Hours of Service Act. Certainly the agreement of the affected parties on the issue of "suitability" will be persuasive (normally dispositive) evidence on the adequacy of the facilities under the Hours of Service Act, though FRA must reserve the right to make an independent judgment on the latter issue. It should be noted that, under a 1976 amendment to section 2 or the Act (45 U.S.C. 62), carrier-provided sleeping quarters, including dormitories, trailers, and bunk cars, must be "clean, safe, and sanitary" and "free from interruptions caused by noise under the control of the railroad". FRA is responsible for the administration of that provision, as well.

Deadheading. Two commenters suggested that the discussion of deadheading be revised to note that statutory language on deadheading does not apply to operators, dispatchers and other section 3 employees. The organization of both the proposed and revised documents is intended to reflect the fact that only train and engine service employees are said to engage in "deadhead transportation" within the meaning of the Act. This is explicitly confirmed in the revised text by reference to "train and engine service" employees.

Concerning deadheading of train or engine crews by private automobile, a commenter questioned the relevance of compensation through a fixed or "arbitrary" payment on the issue of whether transportation by private automobile is to be considered ordinary commuting or deadheading. FRA believes that, along with other factors, such compensation is a significant indicium of the nature of the period in question. The issue in each case is whether the employee is traveling to a point of duty assignment other than his normal reporting point or "base of operations" by personal vehicle in lieu of carrier-provided transportation.

Wreck and relief trains. The 1976 amendments to the Act make wreck and relief crews subject to the 12-hour limitation and the requirements for 8 or 10-hour release periods. However, a special-purpose emergency provision permits wreck and relief crews to work up to 16 hours if necessitated by the emergency. An emergency for these purposes must be read to include most accidents and derailments requiring the use of such crews. The emergency concept seems less strict than the "casualty or unavoidable accident or act of God" described in section 5(d) of the Act. The text reflects that distinction and has been further clarified at the request of a commenter. However the additional 4 hours are available only as

required to deal with an ongoing emergency.

The following discussion relates to comments on the portion of the text entitled "Communication of Train Orders":

Shifts. Several commenters questioned the definition of "shift" set forth in the notice, a definition which was contained in FRA's previous public memoranda on the Act. The rule that employees must be assigned the same starting time to be considered one "shift" is rooted in the legislative history of the 1969 revision to the Act (Pub. L. No. 91-169). See H.R. Rep. No. 604, 91st Cong., 1st Sess. 9 (1969). Two commenters submitted evidence suggesting a broader meaning for the term, based on National Railroad Adjustment Board awards and the wording of several collective bargaining agreements. FRA believes the Act should be given the reading anticipated by Congress, whether or not there may be disagreement concerning usage of the term in the industry. To recognize staggered starting times as a feature of a single "shift" would be to invite confusion and result in the Act being unevenly applied. Though most carriers with agreements allowing shifts to commence at different times within a specified range appear to limit that range of 1½ to 2 hours, one commenter suggested a one-shift example with one employee working 6:30 a.m.-3:00 p.m. and another working 10:00 a.m.-6:00 p.m. The logical extension of such a principle would treat any overlap whatsoever as creating a single shift, provided the collective bargaining agreement so provided. Again, FRA believes that the law should be construed in the simple manner anticipated by the Congress. Therefore, a "shift" is defined to mean a tour of duty constituting a day's work for one or more employees performing the same class of work at the same station who are scheduled to begin and end work at the same time.

Duty time and effective periods of release. Commenters expressed apprehension concerning treatment of travel time for employees engaged in the communication of train orders. FRA's informational memorandum of January 9, 1973 stated that time spent traveling between places in the course of a duty tour is considered time on duty. Traditionally other travel time for such covered employees has not been considered on-duty time. Nor have such employees been considered subject to the provisions on deadheading. FRA does not propose to adopt a new position at this time.

The following discussion relates to comments on the portion of the text entitled "General Provisions":

Commingled service. Two commenters objected to counting attendance at rules classes as on-duty time under the provisions on commingled service. Other commenters limited their objection to counting required rules classes where employees have the option to attend one of several sessions. Certain commenters also objected to counting time spent in compelled attendance at disciplinary proceedings. Others would count only those periods spent in other service which precede covered service.

The statute requires that all time spent in other service for the carrier be counted in computing the on-duty time of an employee performing covered service during the 24-hour period. It is immaterial that the specific scheduling of such service is left, in part, to the employee.

The carrier must assure that its employees do not exceed the limitations on hours through commingled service. Case law establishes that training sessions constitute "time on duty" ("United States v. Baltimore and Ohio R.R.," 328 F.Supp. 1102 (W.D. Pa. 1971)), and the same result must obtain with regard to attendance at disciplinary proceedings at the behest of the carrier.

The statute does not permit different treatment of situations in which noncovered service follows, rather than precedes, covered service. Even before the enactment of explicit language requiring that "all time on duty in other service" be counted in computing on-duty time, the courts had construed the law to require that subsequent noncovered service be counted. "See Atchison, Topeka and Santa Fe Ry. v. United States," 243 F. 114 (8th Cir. 1917); "San Pedro, L.A. & S.L. R.R. v. United States," 213 F. 326 (8th Cir. 1914); "Delano v. United States," 220 F. 635 (7th Cir. 1915).

One commenter suggested that time spent in jury duty and similar endeavors be subject to the rule of commingled service. The statute speaks only of "other service performed for the common carrier".

Casualty; unavoidable accident; Act of God. At the suggestion of several commenters, the discussion of subsection (d) of section 5 of the Act (45 U.S.C. 64a(d)) has been moved beneath the heading of "General Provisions". This reflects the fact that the subsection may provide relief from the requirements governing each of the three types of covered service.

Several commenters suggested that the proposed interpretations of section 5(d) were excessively restrictive. Based on judicial interpretations of this provision, FRA respectfully disagrees. The overwhelming view adopted by the courts is that most common operational difficulties do not excuse excess service. See, for example, "Atchison, Topeka and Santa Fe Ry. v. United States," 243 F. 114 (8th Cir. 1917); "United States v. Atchison, Topeka and Santa Fe Ry.," 302 F. Supp. 393 (D. N.M. 1969). Further, even when an extraordinary event occurs which might be regarded as involving the exemption, the carrier must still exercise "due diligence" to avoid or limit excess service. "Atchison, Topeka and Santa Fe Ry. v. United States," 244 U.S. 336 (1917). The carrier has the burden of establishing that the excess service could not have been avoided. "United States v. Lehigh Valley R.R.," 219 F. 532 (2nd Cir. 1914); "United States v. Great Northern Ry.," 220 F. 630 (7th Cir. 1915).

Sleeping quarters. No new comments were received on the application of paragraph (3) of subsection 2(a) of the Act (45 U.S.C. 62(a)(3)), which was added by section 4 of Pub. L. No. 94-348, 90 Stat. 817, 818. That paragraph makes it unlawful for a carrier to provide sleeping quarters for employees covered by the Act which do not afford an opportunity for rest, free from interruptions caused by noise under the control of the railroad, or which are not clean, safe, and sanitary. Paragraph (4) of subsection 2(a) provides that sleeping quarters may not be located "within or in the immediate vicinity" of switching or humping operations, as determined in accordance with rules prescribed by FRA (under a delegation from the Secretary of Transportation). See FRA interim rules at 41 FR 53028 (December 3, 1976) and a notice of proposed rulemaking on paragraph (4) determinations at 41 FR 53070 (December 3, 1976).

In the absence of comments addressing paragraph (3), FRA will administer that provision on a case-by-case basis until guidelines can be developed. Further opportunity to comment will be provided when proposed guidelines have been formulated. In preparing proposed guidelines, FRA will consider materials submitted in connection with FRA Rulemaking Petition 74-3 (see 40 FR 6701; February 13, 1975), which preceded the recent amendments to the Hours of Service Act and which has, therefore, been denied (see 41 FR 53030).

In consideration of the foregoing, Part 228, Title 49, Code of Federal Regulations is amended by the addition of the following appendix.

APPENDIX A—REQUIREMENTS OF THE HOURS OF SERVICE ACT: STATEMENT OF AGENCY POLICY AND INTERPRETATION

First enacted in 1907, the Hours of Service Act was substantially revised in 1969 by Pub. L. 91-169. Further amendments were enacted as part of the Federal Railroad Safety Authorization Act of 1976, Pub. L. 94-348. The purpose of the law is "to promote the safety of employees and travelers upon railroads by limiting the hours of service of employees * * *." This appendix is designed to explain the effect of the law in commonly-encountered situations.

The Act governs the maximum work hours of employees engaged in one or more of the basic categories of covered service treated below. If an individual performs more than one kind of covered service during a tour of duty, then the most restrictive of the applicable limitations control.

The Act applies to any common carrier engaged in interstate or foreign commerce by railroad. It governs the carrier's operations over its own railroad and all lines of road which it uses.

TRAIN AND ENGINE SERVICE

Covered Service. Train or engine service refers to the actual assembling or operation of trains. Employees who perform this type of service commonly include locomotive engineers, firemen, conductors, trainmen, switchmen, switchtenders (unless their duties come under the provisions of section 3) and hostlers. With the passage of the 1976 amendments, both inside and outside hostlers are considered to be connected with the movement of trains. Previously, only outside hostlers were covered. Any other employee who is actually engaged in or con-

nected with the movement of any train is also covered, regardless of his job title.

Limitations on Hours. The Act establishes two limitations on hours of service. First, no employee engaged in train or engine service may be required or permitted to work in excess of twelve consecutive hours. After working a full twelve consecutive hours, an employee must be given at least ten consecutive hours off duty before being permitted to return to work.

Second, no employee engaged in train or engine service may be required or permitted to continue on duty or go on duty unless he has had at least eight consecutive hours off duty within the preceding twenty-four hours. This latter limitation, when read in conjunction with the requirements with respect to computation of duty time (discussed below) results in several conclusions:

(1) When an employee's work tour is broken or interrupted by a valid period of interim release (4 hours or more at a designated terminal), he may return to duty for the balance of the total 12-hour work tour during a 24-hour period.

(2) After completing the 12 hours of broken duty, or at the end of the 24-hour period, whichever occurs first, the employee may not be required or permitted to continue on duty or to go on duty until he has had at least 8 consecutive hours off duty.

(3) The 24-hour period referred to in paragraphs 1 and 2 above shall begin upon the commencement of a work tour by the employee immediately after his having received a statutory off-duty period of 8 or 10 hours as appropriate.

Duty time and effective periods of release. On-duty time commences when an employee reports at the time and place specified by the railroad and terminates when the employee is finally released of all responsibilities. (Time spent in deadhead transportation to a duty assignment is also counted as time on duty. See discussion below.) Any period available for rest that is of four or more hours and is at a designated terminal is off-duty time. All other periods available for rest must be counted as time on duty under the law, regardless of their duration.

The term "designated terminal" means a terminal (1) which is designated in or under a collective bargaining agreement as the "home" or "away-from-home" terminal for a particular crew assignment and (2) which has suitable facilities for food and lodging. Carrier and union representatives may agree to establish additional designated terminals having such facilities as points of effective release under the Act. Agreements to designate additional terminals for purposes of release under the Act should be reduced to writing and should make reference to the particular assignments affected and to the Hours of Service Act. The following are common situations illustrating the designated terminal concept:

(1) A freight or passenger road crew operates a train from home terminal "A" to away-from-home terminal "B" (or the reverse). Terminals "A" and "B" would normally be the designated terminals for this specific crew assignment. However, carrier and employee representatives may agree to designate additional terminals having suitable facilities for food and lodging as appropriate points of release under the Hours of Service Act.

(2) A road crew operates a train in turn-around service from home terminal "A" to turn-around point "B" and back to "A". Terminal "A" is the only designated terminal for this specific crew assignment, unless carrier and employee representatives have agreed to designate additional terminals having suitable facilities for food and lodging.

(3) A crew is assigned to operate a maintenance-of-way work train from home terminal "A", work on line of road and tie up for rest along the line of road at point "B". Home terminal "A" and tie-up point "B" both qualify as designated terminals for this specific work train crew assignment. Of course, suitable facilities for food and lodging must be available at tie-up point "B".

Deadheading. Under the Act time spent in deadhead transportation receives special treatment. Time spent in deadhead transportation to a duty assignment by a train or engine service employee is considered on-duty time. Time spent in deadhead transportation from the final duty assignment of the work tour to the point of final release is not computed as either time on duty or time off duty. Thus, the period of deadhead transportation to point of final release may not be included in the required 8- or 10-hour off-duty period. Time spent in deadhead transportation to a duty assignment is calculated from the time the employee reports for deadhead until he reaches his duty assignment.

Transit time from the employee's residence to his regular reporting point is not considered deadhead time.

If an employee utilizes personal automobile transportation to a point of duty assignment other than the regular reporting point in lieu of deadhead transportation provided by the carrier, such actual travel time is considered as deadheading time. However, if the actual travel time from his home to the point of duty assignment exceeds a reasonable travel time from the regular reporting point to the point of duty assignment, then only the latter period is counted. Of course, actual travel time must be reasonable and must not include diversions for personal reasons.

Example: Employee A receives an assignment from an "extra board" located at his home terminal to protect a job one hour's drive from the home terminal. In lieu of transporting the employee by carrier conveyance, the railroad pays the employee a fixed amount to provide his own transportation to and from the outlying point. The employee is permitted to go directly from his home to the outlying point, a drive which takes 40 minutes. The normal driving time between his regular reporting point at his home terminal and the outlying point is 60 minutes. The actual driving time, 40 minutes, is considered deadhead time and is counted as time on duty under the Act.

Employee A performs local switching service at the outlying point. When the employee returns from the outlying point that evening, and receives an "arbitrary" payment for his making the return trip by private automobile, 40 minutes of his time in transportation home is considered deadheading to point of final release and is not counted as either time on duty or time off duty.

Wreck and relief trains. Prior to the 1976 amendments, crews of wreck and relief trains were exempted entirely from the limitations on hours of service. Under present law that is no longer the case. The crew of a wreck or relief train may be permitted to be on duty for not to exceed 4 additional hours in any period of 24 consecutive hours whenever an actual emergency exists and the work of the crew is related to that emergency. Thus, a crew could work up to 16 hours, rather than 12. The Act specifies that an emergency ceases to exist for purposes of this provision when the track is cleared and the line is open for traffic. An "emergency" for purposes of wreck or relief service may be a less extraordinary or catastrophic event than an "unavoidable accident or Act of God" under section 5(d) of the Act.

Example: The crew of a wreck train is dispatched to clear the site of a derailment which has just occurred on a main line. The wreck crew re-rails or clears the last car and the maintenance of way department releases the track to the operating department 14 hours and 30 minutes into the duty tour. Since the line is not clear until the wreck train is itself out of the way, the crew may operate the wreck train to its terminal, provided this can be accomplished within the total of 16 hours on duty.

Emergencies. The Act contains no general exception using the term "emergency" with respect to train or engine service or related work. See "casualties," etc., under "General Provisions".

COMMUNICATION OF TRAIN ORDERS

Covered Service. The handling of orders governing the movement of trains is the second type of covered service. This provision of the Act applies to any operator, train dispatcher, or other employee who by the use of the telegraph, telephone, radio, or any other electrical or mechanical device dispatches, reports, transmits, receives, or delivers orders pertaining to or affecting train movements.

The approach of the law is functional. Thus, though a yardmaster normally is not covered by this provision, a yardmaster or other employee who performs any of the specified service during a duty tour is subject to the limitations on service for that entire tour.

Limitations on hours. No employee who performs covered service involving communication of train orders may be required or permitted to remain on duty for more than nine hours, whether consecutive or in the aggregate, in any 24-hour period in any office, tower, station or place where two or more shifts are employed. Where only one shift is employed, the employee is restricted to 12 hours consecutively or in the aggregate during any 24-hour period.

The provision on emergencies, discussed below, may extend the permissible hours of employees performing this type of service.

Shifts. The term "shift" is not defined by the Act, but the legislative history of the 1969 amendments indicates that it means a tour of duty constituting a day's work for one or more employees performing the same class of work at the same station who are scheduled to begin and end work at the same time. The following are examples of this principle:

Scheduled Hours	*Classification*
7 a.m. to 3 p.m.	1 shift.
7 a.m. to 12:30 p.m. 1:30 p.m. to 8 p.m. (Schedule for one employee including one hour lunch period).	Do.
7 a.m. to 3 p.m. 7 a.m. to 3 p.m. (Two employees scheduled).	Do.
7 a.m. to 3 p.m. 8 a.m. to 4 p.m. (Two employees scheduled).	2 shifts.

Duty time and effective periods of release. If, after reporting to his place of duty, an employee is required to perform duties at other places during this same tour of duty, the time spent traveling between such places is considered as time on duty. Under the traditional administrative interpretation of section 3, other periods of transportation are viewed as personal commuting and, thus, off-duty time.

A release period is considered off-duty time if it provides a meaningful period of relaxation and if the employee is free of all responsibilities to the carrier. One hour is the minimum acceptable release period for this type of covered service.

Emergencies. The section of the Act dealing with dispatchers, operators, and others who transmit or receive train orders contains its own emergency provision. In case of emergency, an employee subject to the 9 or 12-hour limitation is permitted to work an additional four hours in any 24-hour period, but only for a maximum of three days in any period of seven consecutive days. However, even in an emergency situation the carrier must make reasonable efforts to relieve the employee.

GENERAL PROVISIONS

(APPLICABLE TO ALL COVERED SERVICE)

Commingled Service. All duty time for a railroad even though not otherwise subject to the Act must be included when computing total on-duty time of an individual who performs one or more of the types of service covered by the Act. This is known as the principle of "commingled service".

For example, if an employee performs duty for 8 hours as a trainman and then is used as a trackman (not covered by the law) in the same 24-hour period, total on-duty time is determined by adding the duty time as trackman to that as trainman. The law does not distinguish treatment of situations in which non-covered service follows, rather than precedes, covered service. The limitations on total hours apply on both cases. It should be remembered that attendance at required rules classes is duty time subject to the provisions on "commingling". Similarly, where a carrier compels attendance at a disciplinary proceeding, time spent in attendance is subject to the provisions on commingling.

When an employee performs service covered by more than one restrictive provision, the most restrictive provision determines the total lawful on-duty time. Thus, when an employee performs duty in train or engine service and also as an operator, the provisions of the law applicable to operators apply to all on-duty and off-duty periods during such aggregate time. However, an employee subject to the 12 hour provision of section 2 of the law does not become subject to the 9 or 12-hour provisions of section 3 merely because he receives, transmits or delivers orders pertaining to or affecting the movement of his train in the course of his duties as a trainman.

Casualties, Unavoidable Accidents, Acts of God. Section 5(d) of the Act states the following: "The provisions of this Act shall not apply in any case of casualty or unavoidable accident or the Act of God; nor where the delay was the result of a cause not known to the carrier or its officer or agent in charge of the employee at the time said employee left a terminal, and which could not have been foreseen." This passage is commonly referred to as the "emergency provision". Judicial construction of this sentence has limited the relief which it grants to situations which are truly unusual and exceptional. The courts have recognized that delays and operational difficulties are common in the industry and must be regarded as entirely foreseeable; otherwise, the Act will provide no protection whatsoever. Common operational difficulties which do not provide relief from the Act include, but are not limited to, broken draw bars, locomotive malfunctions, equipment failures, brake system failures, hot boxes, unexpected switching, doubling hills and meeting trains. Nor does the need to clear a main line or cut a crossing justify disregard of the limitations of the Act. Such contingencies must normally be anticipated and met within the 12 hours. Even where an extraordinary event or combination of events occurs which, by itself, would be sufficient to permit excess service, the carrier must still employ due diligence to avoid or limit such excess service. The burden of proof rests with the carrier to establish that excess service could not have been avoided.

Sleeping Quarters. Under the 1976 amendments to the Act it is unlawful for any common carrier to provide sleeping quarters for persons covered by the Hours of Service Act which do not afford such persons an opportunity for rest, free from interruptions caused by noise under the control of the railroad, in clean, safe, and sanitary quarters. Such sleeping quarters include crew quarters, camp or bunk cars, and trailers.

Collective Bargaining. The Hours of Service Act prescribes the maximum permissible hours of service consistent with safety. However, the Act does not prohibit collective bargaining for shorter hours of service and time on duty.

Penalty. The penalty provisions of the law apply to the carriers and not their employees.

Each and every violation of the requirements of the Hours of Service Act subjects the offending railroad to a penalty of $500. Each employee who is required or permitted to be on duty for a longer period than prescribed by law or who does not receive a required period of rest represents a separate and distinct violation and subjects the railroad to the statutory penalty of $500.

Statute of limitations. No suit may be brought after the expiration of two years from the date of violation.

Exemptions. A railroad which employs not more than 15 persons covered by the Hours of Service Act (including signalmen and hostlers) may be exempted from the law's requirements by the FRA after hearing and for good cause shown. The exemption must be supported by a finding that it is in the public interest and will not adversely affect safety. The exemption need not relate to all carrier employees. In no event may any employee of an exempt railroad be required or permitted to work beyond 16 hours continuously or in the aggregate within any 24-hour period. Any exemption is subject to review at least annually.

Issued in Washington, D.C., on May 24, 1977.

BRUCE M. FLOHR,
Deputy Administrator.

[FR Doc.77-15413 Filed 5-27-77;8:45 am]

CHAPTER X—INTERSTATE COMMERCE COMMISSION

SUBCHAPTER B—PRACTICE AND PROCEDURE

[Ex Parte No. 55 (Sub-No. 24)]

PART 1100—RULES OF PRACTICE

AGENCY: Interstate Commerce Commission.

ACTION: Correction.

SUMMARY: In the Report of the Commission in the above-entitled proceeding of April 28, 1977, served May 2, 1977, and published in the FEDERAL REGISTER at 42 FR 23806, May 11, 1977, clerical errors were made in §§ 1100.5(c), 1100.12(e), and Appendix B to the rules of practice. They are hereby corrected as set forth under "Supplementary Information".

EFFECTIVE DATE: July 1, 1977.

FOR FURTHER INFORMATION CONTACT:

Janice M. Rosenak (Rates), (202-275-7245).

Philip Israel (Finance), (202-275-7245).

Michael Erenberg (Operating Rights), (202-275-7292).

SUPPLEMENTARY INFORMATION: (1) Section 1100.5(c) The term "complainant" means a person filing a complaint; "defendant" means a person against whom a complaint is filed; "applicant" means a person filing an application; "respondent" means a person designated in an investigation; "protestant" means a person opposed to the granting of an application, to any tariff or schedule becoming effective or to a tentative valuation; "intervener" means a person permitted to intervene as provided in Rule 70 or 71, and "petitioner" means any person seeking relief other than by complaint, protest or application.

(2) Section 1100.12(e) *Termination of joint board jurisdiction; subsequent procedure.* The jurisdiction of a joint board over a referred matter shall be terminated in the event of: (1) Service of an initial decision as provided in paragraph (d) of this section; (2) submission of the board's conclusions without a written initial decision; (3) waiver of action in writing by appropriate authority of each State from which a member is entitled to be appointed; (4) failure of all members of the board to appear at the hearing; (5) failure of a majority of the board to agree on substantive matters; or (6) entry of an initial decision is served as provided in paragraph (d) of this section, in which event the subsequent procedure will be as provided in Rules 96, 97, 98, and 99, a referred matter, after termination of joint board jurisdiction, will be decided by the Commission or be made the subject of another officer's initial decision on the record theretofore made or after such hearing or further hearing as may be required.

(3) Appendix B—(a) Table of Contents.

5. Form of reparation statement under Rule 95.

(b) Footnote 1—See Rules 24 to 31 inclusive.

(c) Footnote 3—Signature and verification by complainant unnecessary if complaint is signed by a practitioner—See Rule 15.

(d) Footnote 4—See Rules 33 to 35, inclusive.

(e) Footnote 5—See Rule 15.

(f) No. 3—Certificate of Service

I certify that I have this day served the forgoing document upon all parties of record in this proceeding, by (here state the precise manner of making service, which must be consistent with Rule 20).

(g) Footnote 6—See Rule 20.

(h) Footnote 7—See Rule 71.

(i) No. 5—Form Of Reparation Statement Under Rule 95.

(j) Footnote 8—See Rule 48.

ROBERT L. OSWALD,
Secretary.

[FR Doc.77-15407 Filed 5-27-77;8:45 am]

Title 50—Wildlife and Fisheries

CHAPTER I—UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

PART 33—SPORT FISHING

Opening of Rice Lake National Wildlife Refuge Including Sandstone Unit, Minnesota, to Sport Fishing

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Special Regulation.

SUMMARY: The Director has determined that the opening to sport fishing of Rice Lake National Wildlife Refuge including the Sandstone Unit is compatible with the objectives for which the area was established, will utilize a renewable natural resource, and will provide additional recreational opportunity to the public.

DATES: May 1, 1977 through November 30, 1977.

FOR FURTHER INFORMATION CONTACT:

Refuge Manager, Rice Lake National Wildlife Refuge, Route 2, McGregor, Minnesota 55760. Telephone number 218–768–2402.

SUPPLEMENTARY INFORMATION:

§ 33.5 Special regulations; sport fishing; for individual wildlife refuge areas.

Sport fishing is permitted on the Rice Lake National Wildlife Refuge, Aitkin County, Minnesota, and also on the Sandstone Unit, Pine County, Minnesota, only on the areas designated by signs as being open to fishing. These areas comprising approximately 80 acres are delineated on maps available at the refuge headquarters and from the office of the Regional Director, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111.

Sport fishing shall be in accordance with all applicable State regulations subject to the following conditions:

1. The open season for sport fishing on the refuge shall be from May 1, 1977 through November 30, 1977, both dates inclusive.

2. Public use of the fishing areas shall be during daylight hours only.

3. The use of motors on boats is prohibited.

The provisions of this special regulation supplement the regulations which govern fishing on wildlife refuge areas generally which are set forth in Title 50 Code of Federal Regulations, Part 33. The public is invited to offer suggestions and comments at any time.

The U.S. Fish and Wildlife Service has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11949 and OMB Circular A–107.

DON E. ADAMS,
Refuge Manager.

APRIL 19, 1977.

[FR Doc.77–15331 Filed 5–27–77;8:45 am]

CHAPTER VI—FISHERY CONSERVATION AND MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

PART 661—SALMON FISHERY

Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California

AGENCY: National Oceanic and Atmospheric Administration/Commerce.

ACTION: Correction.

SUMMARY: This document corrects an omission brought to the attention of the National Marine Fisheries Service concerning size restrictions for coho salmon that was inadvertently left out of § 661.8 when republished in amendments to emergency regulations published on May 24, 1977 (42 FR 26580).

EFFECTIVE DATE: May 25, 1977.

FOR FURTHER INFORMATION CONTACT:

Mr. Donald Johnson, Northwest Regional Director, National Marine Fisheries Service, Seattle, Wash. 98109, phone 206–442–7575.

Subparagraph (2) of § 661.8(c) reads as follows:

§ 661.8 Commercial fishing.

* * * * *

(c) * * *

(2) No person while aboard a vessel used for commercial fishing shall take and retain any coho salmon (*Oncorhynchus kisutch*) less than:

(i) 16 inches in length in Management Areas A, B and C; or

(ii) 22 inches in length in Management Areas D and E.

* * * * *

Issued in Washington, D.C., May 25, 1977.

WINFRED H. MEIBOHM,
Associate Director,
National Marine Fisheries Service.

[FR Doc.77–15421 Filed 5–27–77;8:45 am]

Title 5—Administrative Personnel

CHAPTER I—CIVIL SERVICE COMMISSION

PART 213—EXCEPTED SERVICE

Department of Defense

AGENCY: Civil Service Commission.

ACTION: Final rule.

SUMMARY: This section is amended to show that one position of Private Secretary to the Assistant Secretary of Defense (Communications, Command, Control, and Intelligence) is excepted under Schedule C because it is confidential in nature. This section is further amended to show that the need for the following positions no longer exists and they are no longer excepted under Schedule C: Private Secretary to the Assistant Secretary (Intelligence); and Private Secretary to the Director, Telecommunications and Command, and Control Systems.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

William Bohling (202–632–4533).

Accordingly, 5 CFR 213.3306(a)(2) is amended, and (a)(59) is revoked, and (a)(84) is added as follows:

§ 213.3306 Department of Defense.

(a) *Office of the Secretary.* * * *

(2) One Private Secretary to the Deputy Secretary of Defense and one Private Secretary to each of the following: the Director of Defense Research and Engineering; the Principal Deputy Director of Defense Research and Engineering; the Deputy Directors of Defense Research and Engineering (Tactical Warfare Programs), (Strategic Systems), (Research and Technology); the Director, Advanced Research Project Agency; the Assistant Secretaries of Defense (Manpower and Reserve Affairs), (International Security Affairs), (Public Affairs), (Installations and Logistics), (Comptroller), (Program Analysis and Evaluation), and (Legislative Affairs); the General Counsel; the Assistant to the Secretary of Defense (Atomic Energy); and the Military Assistants to the Secretary of Defense.

* * * * *

(59) [Revoked]

* * * * *

(84) One Private Secretary to the Assistant Secretary of Defense (Communications, Command, Control, and Intelligence).

(5 U.S.C. 3301, 3302; E.O. 10577, 3 CFR 1954–1958 Comp., p. 218.)

UNITED STATES CIVIL SERVICE COMMISSION,

JAMES C. SPRY,
Executive Assistant
to the Commissioners.

[FR Doc.77–15438 Filed 5–27–77;8:45 am]

Title 19—Customs Duties

CHAPTER I—U.S. CUSTOMS SERVICE, DEPARTMENT OF THE TREASURY

[T.D. 77–148]

PART 162—INSPECTION, SEARCH, AND SEIZURE

Seizures by Customs Officers; Correction

AGENCY: United States Customs Service, Department of the Treasury.

ACTION: Final rule; T.D. 77–136, amending the Customs Regulations pertaining to seizures by Customs officers, corrected.

SUMMARY: This rule corrects a recent amendment to the Customs Regulations concerning the instances in which Customs officers will seize merchandise for Customs violations. As corrected, the Customs Regulations will conform to the policy of the Customs Service, as explained in the preamble of the recent amendment, which permits the seizure

of merchandise for certain violations not involving a loss of revenue.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

John T. Roth, Attorney, Regulations and Legal Publications Division, United States Customs Service, 1301 Constitution Avenue NW., Washington, D.C. 20229 (202-566-8237).

SUPPLEMENTARY INFORMATION: On May 17, 1977, Treasury Decision 77-136 was published in the FEDERAL REGISTER (42 FR 25323) amending the Customs Regulations pertaining to seizures of merchandise by Customs officers for Customs violations. In the preamble of Treasury Decision 77-136, under the heading "Supplementary Information," the Customs Service set forth its policy with respect to seizures and stated, "where absolutely prohibited importations are not involved, it is the position of the United States Customs Service that unless required by law, property should only be seized when it is necessary to protect the revenue."

Treasury Decision 77-136 amended § 162.41(a) of the Customs Regulations (19 CFR 162.41(a)) to provide for certain situations in which merchandise shall, or shall not, be seized. Section 162.41(a)(3) was amended to provide that merchandise shall only be seized if the district director is satisfied that (1) the violator appears to be insolvent or may soon become insolvent, (2) the violator or his assets appear to be beyond the jurisdiction of the United States, or (3) for some other reason, a claim for the domestic value of the merchandise would not protect the revenue.

As amended, § 162.41(a)(3) could be construed to forbid the seizure of absolutely prohibited merchandise or the seizure of merchandise involved in other violations not resulting in an actual or potential loss of revenue. This effect was not intended and occurred because the qualifying clause: "In the case of a violation resulting solely in an actual or potential loss of revenue" was inadvertently omitted from § 162.41(a)(3). In order to conform the Customs Regulations to the Customs policy with regard to the seizure of merchandise for Customs violations, it is necessary to amend § 162.41(a)(3) by the insertion of the clause noted above.

This amendment corrects an inconsistency between a stated policy of the Customs Service and a previous amendment to the Customs Regulations which was intended to reflect that policy. No additional burden of any kind is placed on the public by this amendment. Accordingly, the Customs Service has determined that notice and public procedure with respect to this amendment are unnecessary, and that there is good cause for dispensing with a delayed effective date under the provisions of 5 U.S.C. 553(d).

DRAFTING INFORMATION

The principal author of this amendment was John T. Roth, Attorney, Regulations and Legal Publications Division of the Office of Regulations and Rulings, United States Customs Service, Washington, D.C. 20229. However, personnel from other offices of the Customs Service participated in its development, both on matters of substance and style.

AMENDMENT

Accordingly, the first sentence of subparagraph (3) of § 162.41(a) of the Customs Regulations (19 CFR 162.41(a)(3)) is amended to read as follows:

§ 162.41 **Merchandise entered by false invoice, declaration, other document or statement, subject to forfeiture.**

(a) * * *

(3) In the case of a violation resulting solely in an actual or potential loss of revenue, the merchandise shall only be seized if the district director is satisfied that:

* * * * *

(R.S. 251, as amended, sec. 624, 46 Stat. 759 (19 U.S.C. 66, 1624).)

G. R. DICKERSON,
Acting Commissioner of Customs.

Approved: May 25, 1977.

BETTE B. ANDERSON,
Under Secretary of the Treasury.

[FR Doc.77-15442 Filed 5-27-77;8:45 am]

Title 41—Public Contract and Property Management

CHAPTER 9—ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

[ERDA-PR Temporary Regulation No. 33]

PART 9-3—PROCUREMENT BY NEGOTIATION

Contract Audit as Pricing Aid

AGENCY: Energy Research and Development Administration.

ACTION: Temporary Regulation No. 33.

SUMMARY: This action changes ERDA-PR § 9-3.809 by raising the dollar level for mandatory preaward audit required prior to the negotiation of certain contract types. Inflation has made the present $100,000 threshold unrealistic for most contract types. The effects of this action will be to reduce administrative efforts and expenses to both industry and Government, and will permit application of resources to actions of greater significance.

DATE: *Effective date.* This regulation is effective on May 31, 1977.

ADDRESSES: Berton J. Roth, Division of Procurement, Room C-167, USERDA, Washington, D.C. 20545.

FOR FURTHER INFORMATION CONTACT:

Berton J. Roth (202-376-9229).

SUPPLEMENTARY INFORMATION: *Expiration date.* This regulation will remain in effect until canceled or until its provisions are incorporated into a permanent procurement regulation.

Section 9-3.809(b) is revised as follows:

Subpart 9-3.8—Price Negotiation Policy and Techniques

§ 9-3.809 **Contract audit as a pricing aid.**

* * * * *

(b) *Auditors reports on contract price proposals.* (1) Prior to negotiation of any contract or modification resulting from a proposal in excess of $100,000 for firm fixed-price and fixed-price with economic price adjustment provisions or $250,000 for all other contract types (including initial prices, estimated costs of cost-reimbursement types, interim and final price redeterminations, escalation, target and settlement of incentive types where the price will be based on cost or pricing data (paragraphs 1-3.807-3 and 9-3.807-3) submitted by the contractor), the contracting officer or his authorized representative shall request an audit review by the contract audit activity.

(i) The requirement for audit of proposals which exceed the thresholds may be waived only by the field office manager or the Assistant Director for Operations, Headquarters, Division of Procurement, and then only whenever it is clear that information already available is adequate for the proposed procurement. In such case, the contract file shall be documented to reflect the reason for any such waiver, provided, however, that independent Government estimates of cost or price shall not be used as the sole justification for any such waiver (see § 1-3.811(a)(4).

(ii) Audits should be requested for proposals of less than the threshold limits where a valid need exists.

(Sec. 105, Energy Reorganization Act of 1974 (Pub. L. 93-438).)

Dated: May 16, 1977.

WILLIAM A. PARKER,
Deputy Director,
Division of Procurement.

[FR Doc.77-15409 Filed 5-27-77;8:45 am]

CHAPTER 7—AGENCY FOR INTERNATIONAL DEVELOPMENT, DEPARTMENT OF STATE

[AIDPR Notice 77-6]

MISCELLANEOUS AMENDMENTS TO CHAPTER

AGENCY: Agency for International Development, State.

ACTION: Interim regulations.

SUMMARY: Based on policy decisions made by the Deputy Administrator of AID, AID's procurement regulations have been revised to: (1) incorporate a reference to the Agency's internal procurement policy statements, in order to advise the public of the existence and

location of these statements; (2) to increase AID's overseas Mission's authority for non-competitive procurement, to provide Missions with increased flexibility and reduce the need for review and approval by AID/Washington; and (3) to make clear that formal solicitation of proposals from more than one source is not required under AID's research and development or collaborative assistance programs.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

Wayne McKeel, Director, Procurement Policy Working Group, Department of State, Agency for International Development, Washington, D.C. 20523 (202-235-1840).

PART 7-1—GENERAL

Subpart 7-1.1—Introduction

1. Section 7-1.101 is amended as follows:

§ 7-1.101 Purpose.

The Agency for International Development Procurement Regulations (AIDPR) supplement the Federal Procurement Regulations (FPR) and implement the procurement related aspects of the Foreign Assistance Act, Executive Order 11223, and established AID policies on procurement as set forth in Supplement B to AID Handbook 1. The AIDPR provides for the codification and publication of procedures for the procurement of services and personal property by AID.

PART 7-3—PROCUREMENT BY NEGOTIATION

Subpart 7-3.1—Use of Negotiation

2. In § 7-3.101-50, paragraph (a)(2) is revised as follows:

§ 7-3.101-50 Exceptions to normal negotiation procedures.

* * * * *

(a) * * *

(2) A procurement by an overseas procuring activity (e.g. AID Missions) where the estimated cost of professional/technical services under a single contract is less than $50,000, or the estimated landed cost of all equipment and materials purchased under a single contract is less than $25,000.

* * * * *

PART 7-4—SPECIAL TYPES AND METHODS OF PROCUREMENT

Subpart 7-4.53—Procurement Under AID Research and Analysis Programs

3. In § 7-4.5301, paragraph (e) is revised as follows:

§ 7-4.5301 Unsolicited research and analysis proposals.

* * * * *

(e) *Method of procurement.* A contract may be awarded to an offeror without consideration of other competitive sources, if an unsolicited proposal is the product of original thinking, has significant scientific merit, and contributes to AID's research program. Such an award shall be made upon a determination by the Assistant Administrator having primary responsibility for the research activity.

Subpart 7-4.58—Collaborative Assistance Selection Procedure

4. Section 7-4.5805 is retitled and revised as follows:

§ 7-4.5805 Evaluation and selection.

(a) A sufficient number of sources must be considered to insure that competition is obtained to the maximum practicable extent; this requirement shall be deemed satisfied when a contractor is selected pursuant to the procedures of this subpart. Formal solicitation is not required.

(b) Following determination that a project is in fact collaborative assistance, the evaluation panel shall:

(1) Prepare evaluation and selection criteria;

(2) Prepare an intial source list including all potential sources known to have capabilities and expertise in the areas required by the proposed project; and

(3) Evaluate the list, using the evaluation criteria previously determined, for the purpose of making a written determination of the source (or sources) considered most capable of performing the project.

(c) The Chairman of the evaluation panel will prepare a memorandum to the contracting officer setting forth:

(1) The formal determination that the project is collaborative assistance,

(2) The evaluation criteria which have been determined, and

(3) The recommended source list and the rationale therefor, and requesting the contracting officer to prepare a request for expressions of interest from the qualified institution (or institutions).

(d) The contracting officer and the project officer will prepare a request for an expression (or expressions) of interest, containing sufficient information to permit an institution to determine its interest in the project, and to discuss the project with AID representatives, if appropriate. The request for expression of interest should include a concise statement of the purpose of the project, any special conditions or qualifications considered important, a brief description of the selection procedure and evaluation criteria which will be used (if expressions of interest are being requested from more than one institution), the proposed contract format, and any other information considered appropriate. The request for expression of interest will be issued to the institution or institutions recommended by the panel.

(e) The contracting officer will transmit all expressions of interest to the evaluation panel for evaluation and selection recommendation. The panel may conduct on site evaluations at its discretion, as part of the evaluation process.

(f) The Chairman of the evaluation panel will prepare a written selection recommendation with supporting justification, recommending that negotiations be conducted with the institution (or institutions) selected by the evaluation panel. The selection recommendation shall be transmitted to the contracting officer together with the complete official file on the project which was being maintained by the evaluation panel.

(g) The contracting officer will review the selection recommendation, obtain necessary cost and other data, and proceed to negotiate with the recommend source.

This AIDPR Notice is an interim procurement instruction, issued pursuant to 41 CFR 7-1.104-4.

Dated: May 26, 1977.

JOHN F. OWENS,
Acting Assistant Administrator for Program and Management Services.

[FR Doc.77-15561 Filed 5-27-77;11:51 am]

proposed rules

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.

DEPARTMENT OF AGRICULTURE

Farmers Home Administration

[7 CFR Part 1802]

[FmHA Instruction 430.2]

SUPERVISION OF ASSOCIATION AND ORGANIZATION BORROWERS AND GRANT RECIPIENTS, INCLUDING INDIVIDUAL LABOR HOUSING AND RURAL RENTAL HOUSING BORROWERS WITH LOAN AGREEMENTS

Proposed Amendment

AGENCY: Farmers Home Administration, USDA.

ACTION: Proposed rule.

SUMMARY: The Farmers Home Administration proposes to amend its regulations to provide notice and an opportunity for comment to tenants when Labor Housing and Rural Rental Housing project owners request increases in the monthly rental rates. This amendment is intended to allow tenants to have a voice in proceedings before a planned increase in rental rates is approved.

DATE: Comments must be received on or before June 30, 1977.

ADDRESS: Submit written comments to the Office of the Chief, Directives Management Branch, Farmers Home Administration, U.S. Department of Agriculture, Room 6316, South Building, Washington, D.C. 20250. All written comments made pursuant to this notice will be available for public inspection at the address given above.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul R. Conn (202-447-7207).

SUPPLEMENTARY INFORMATION: Notice is hereby given that the Farmers Home Administration (FmHA) has under consideration the amendment of Subpart G of Part 1802, Chapter XVIII, Title 7, Code of Federal Regulations to add a new § 1802.81, "Rent Increases," and a new Exhibit F, "Rent Increases." This amendment will provide a method of processing a project owner's request for increases in the monthly rental rates which will include advance notice of the increase and an opportunity to comment on the increase to tenants in FmHA Rural Rental Housing and Labor Housing projects.

As proposed, the new 1802.81 and Exhibit F read as follows:

§ 1802.81 Rent increases.

Rent increases for tenants occupying units in RRH and LH projects will be processed in accordance with Exhibit F of this regulation.

EXHIBIT F

RENT INCREASES

I. *Objectives.* The basic objective of this exhibit is to provide a method of processing requests for increases in the monthly rental rates for tenants in Farmers Home Administration (FmHA), Rural Rental Housing (RRH) and Labor Housing (LH) projects. This exhibit covers all RRH and LH loans including those approved prior to the date of this instruction.

II. *Initial Understanding With Borrowers.* The County Supervisor will inform all RRH and LH applicants at the time of application that rent rates in projects financed in whole or in part by an RRH or LH loan cannot be raised without FmHA consent in accordance with requirements in loan agreements, loan resolutions and other instruments executed in connection with RRH and LH loans. The County Supervisor will advise all applicants that all proposed rent increases are subject to compliance with this exhibit in giving advance notice to the tenants and in making formal application to FmHA.

III. *Processing requests—A. Borrower's Responsibility.* When an RRH or LH borrower determines that a rent increase is needed, he should provide the County Supervisor with a letter of application which provides:

1. Need and justification for a rent increase.

2. Past year's operating budget showing actual income and expenses for the project.

3. A new operating budget based on the old rates covering the period to the effective date of the proposed rent increase and then using the new rates to the end of the operating year selected by the borrower.

4. A budget for the next full year of operation using the proposed rates.

5. Schedule of proposed rent for each size unit.

6. Any other information the borrower believes necessary to justify the proposed rent increase.

IV. *Notification to tenants of proposed rent increases.* When the borrower submits the application to FmHA for the proposed rent increase, the borrower will:

A. Post in a conspicuous place in each structure or building of the project for which the rent increase is sought a Notice to Tenants of Proposed Rent Increase hereinafter referred to as Notice in the format in Attachment 1 of this exhibit.

B. Give or mail copies of the Notice to all tenants.

C. Advise the tenants that during a 30 day waiting period in which the Notice will be posted, that they have an opportunity to inspect, copy, and make written comments or objections to all materials justifying the proposed rent increase which will be made available to the tenants as noted on the "Notice to Tenants of Proposed Rent Increase."

D. Advise the tenants that all written comments or objections should be submitted directly to the County Supervisor by the end of the 30 day waiting period.

E. After the 30 day waiting period has ended, submit any comments and objections received from tenants and any other information to be considered to the County Supervisor.

V. *Determination by FmHA—A. Actions by County Supervisor.* When the application and all attachments for the proposed rent increase including the tenant comments have been submitted, the County Supervisor will:

1. Review the application, past year's budgets, planned budgets, schedule for proposed rents and other information submitted.

2. List the number of tenant comments or objections submitted.

3. Write a short narrative describing the general tone of the tenant comments and complaints.

4. Provide recommendations concerning whether the proposed increase should be approved.

5. Submit all the material to the State Director within 10 days after receipt from the borrower.

B. *Actions by the State Director.* When the application and attachments with comments have been submitted, the State Director will review the material to make a determination on the rent increase.

1. When the State Director determines an application for a proposed rent increase is not justified on the basis of the information submitted, he will directly or through the County Supervisor notify the borrower in writing stating the reason why the rent increase is not authorized.

2. When the approval of a rent increase is given, the State Director will notify the borrower directly or through the County Supervisor of the amount of rent increase approved in writing. The State Director will require that the letter of approval of the rent increase be posted by the borrower in a conspicious place for the information of the tenants.

3. The letter of approval should contain concise statements of FmHA's reasons for approval of the rent increase and indicate that it does not authorize the borrower to violate the terms of any lease with the tenants.

VI. *Special Problem Cases. Problem* cases which cannot be handled under this instruction, should be submitted to the National Office for review.

NOTICE TO TENANTS OF PROPOSED RENT INCREASE

.....
(Date posted)

This will advise you that the.....
..... has filed with the Farmers Home Administration, United States Department of Agriculture (FmHA), a request to approve an increase in the monthly rental rates of the ..... project for the following reasons:

1.
2.
3.
4.

Planned rent increases are as follows:

Project name	Unit	Present rent	Proposed rent	Amount increase

All materials justifying the proposed rent increase will be made available for the tenants to inspect and copy at_____ _____ during the hours of _____. The tenants may submit comments in writing to the County Supervisor of the local FmHA office for a 30 day period or until_____. The FmHA County Supervisor is _____, located at_____ _____ _____ _____

These comments will be reviewed by the FmHA County Supervisor and forwarded to the FmHA State Director and a decision will be made as to whether the rent increase should be granted.

Each tenant will be notified of the FmHA decision and the effective date of and authorized rent increase.

By _____
(Borrower or borrower's representative)
_____

(7 U.S.C. 1989; 42 U.S.C. 1480; delegation of authority by the Sec. of Agri., 7 CFR 2.23; delegation of authority by the Asst. Sec. for Rural Development, 7 CFR 2.70.)

NOTE.—The Farmers Home Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821 and OMB Circular A-107.

Dated: May 20, 1977.

DENTON E. SPRAGUE,
Acting Administrator,
Farmers Home Administration.

[FR Doc.77-15411 Filed 5-27-77;8:45 am]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[14 CFR Part 71]

[Airspace Docket No. 77-CE-8 and 77-CE-9]

TRANSITION AREAS AT CLARION, IOWA, AND MOUNTAIN VIEW, MISSOURI

Proposed Designations

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notices of Proposed Rulemaking (NPRMs), extension of comment period.

SUMMARY: This Notice extends the period for receipt of comments on proposals to designate transition areas at Clarion, Iowa (77-CE-8), and Mountain View, Missouri (77-CE-9), to permit interested persons additional time to present meaningful comments in relation thereto.

DATES: Comments must be received on or before July 2, 1977.

ADDRESSES: Send comments on the proposals to: FAA, Office of the Regional Counsel, ACE-7, Attention: Rules Docket Clerk, Docket Nos. 77-CE-8 and 77-CE-9, 601 East 12th Street, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT:

Alden C. Schneider, Airspace Specialist, Operations, Procedures and Airspace Branch, Air Traffic Division, ACE-537, FAA, Central Region, 601 East 12th Street, Kansas City, Missouri 64106, telephone 816-374-3408.

SUPPLEMENTARY INFORMATION: On April 21, 1977, the FAA published Notices of Proposed Rulemaking proposing to designate transition areas at Clarion, Iowa, Airspace Docket No. 77-CE-8, (42 FR 20634, 20635), and Mountain View, Missouri, Airspace Docket No. 77-CE-9, (42 FR 20635). Interested persons were invited to participate in the making of the proposed rules by submitting such written data, views or comments as they desired on or before May 26, 1977. The FAA has concluded that additional time is needed to provide interested persons the opportunity to submit meaningful comments and therefore believes that good cause exists for an extension of the comment period on these two proposals until July 2, 1977.

Therefore, pursuant to the authority delegated to me by the Administrator the closing date for public comment on Airspace Dockets 77-CE-8 and 77-CE-9 is extended to July 2, 1977.

The principal authors of this document are Alden C. Schneider, Air Traffic Division, and John L. Fitzgerald, Jr., Office of the Regional Counsel.

(Sec. 307(a), Federal Aviation Act of 1958 as amended (49 U.S.C. 1348); sec. 6(c) Department of Transportation Act (49 U.S.C. 1655(c)); § 11.65 of the Federal Aviation Regulations (14 CFR 11.65).)

NOTE: The Federal Aviation Administration has determined that these documents do not contain major proposals requiring preparation of Economic Impact Statements under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Kansas City, Missouri, on May 20, 1977.

C. R. MELUGIN, Jr.,
Director, Central Region.

[FR Doc.77-15294 Filed 5-27-77;8:45 am]

SECURITIES AND EXCHANGE COMMISSION

[17 CFR Parts 239, 240, 249]

[Release No. 33-5826, 34-13525, 35-20023, IC-9761]

INDUSTRY AND HOMOGENEOUS GEOGRAPHIC SEGMENT REPORTING

Proposed Amendments of Disclosure Forms and Rules

Correction

In FR Doc. 77-14237 appearing at page 26009 in the issue for Friday, May 20, 1977, on page 26010, in the first column under "For Further Information Contact" the number given for Linda Griggs should have read "202-755-1750". Also, on page 26019, the table at the top of the page is a continuation of the table beginning at the bottom of page 26018 and should have the same column headings.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Parts 137, 166, 172, 173, 175, 176, 177, 178, 180, 181, and 182]

[Docket No. 77N-0003]

BUTYLATED HYDROXYTOLUENE

Use Restrictions

AGENCY: Food and Drug Administration (FDA).

ACTION: Proposal.

SUMMARY: The Commissioner of Food and Drugs is proposing to restrict the use of butylated hydroxytoluene (BHT) as a direct and indirect additive to food pending completion of animal feeding studies necessary to resolve certain safety questions about the metabolism of BHT in man and the toxic effects seen in experimental animals. The proposal would remove BHT from the list of substances that area generally recognized as safe (GRAS) and established an interim food additive regulation for BHT.

DATES: Comments by July 26, 1977.

ADDRESSES: Written comments to the Hearing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT:

Corbin I. Miles, Bureau of Foods (HFF-355), Food and Drug Administration, Department of Health, Education, and Welfare, 200 C St. SW., Washington, DC 20204 (202-472-4750).

SUPPLEMENTARY INFORMATION:

Butylated hydroxytoluene is 2,6-di-*tert*-butyl-*p*-cresol and is also known as DBPC. It is a white crystalline solid, not known to occur naturally, and is prepared synthetically from *p*-cresol and iso-butylene. It is one of several phenolic compounds with antioxidant properties. Because of these properties it has been used as an antioxidant in fats, oils, and fat-containing foods susceptible to rapid rancidification and other oxidative reactions. It has also been used as an antioxidant in food packaging and other food-contact applications.

Subchapter B of Chapter I of Title 21, which contains all FDA regulations for food for human consumption, was reorganized and republished in the FEDERAL REGISTER of March 15, 1977 (42 FR 14302). For the convenience of the reader the former designation numbers of the recodified section numbers used throughout this proposal are set forth as follows:

New section	*Old section*
137.350	15.525
166.110	45.1
170.3	121.1
170.30	121.3
170.35	121.40
170.38	121.41
172.115	121.1034
172.615	121.1059
173.340	121.1099

175.105	121.2520
175.125	121.2577
175.300	121.2514
175.380	121.2559
175.390	121.2548
176.170	121.2526
176.210	121.2519
177.1010	121.2591
177.1210	121.2550
177.1350	121.2570
177.2260	121.2536
177.2600	121.2562
178.3570	121.2553
180.1	121.4000
181.5	121.14
181.24	121.2005(a)
182.3173	[1] 121.101(d)(2)
Part 184	121.104
Part 186	121.105

[1] Table entry for BHT

The Food and Drug Administration first approved BHT for use in food in 1954 after it reviewed the available animal studies. During 1954 and 1955, FDA issued several letters, now referred to as "prior sanctions," approving the use of BHT at levels not to exceed 0.02 percent (200 parts per million (ppm)) of the oil content of food fats and oils. This maximum use level was incorporated into the GRAS list under § 182.3173 (21 CFR 182.3173) when BHT was first listed there in 1959. Since 1959, numerous specific food additive uses of BHT have been approved by issuance of the following regulations: (1) in § 137.350 (21 CFR 137.350), for use in enriched rice; (2) in § 166.110 (21 CFR 166.110), for use in margarine; (3) in § 172.115 (21 CFR 172.115), as an emulsion stabilizer for shortening, dehydrated potato shreds, dry breakfast cereals, potato flakes, sweetpotato flakes, and potato granules; (4) in § 172.615 (21 CFR 172.615), for use in chewing gum base; (5) in § 173.340 (21 CFR 173.340), for use in defoaming agents; (6) in § 175.105 (21 CFR 175.105), as a component of adhesives; (7) in § 175.125 (21 CFR 175.125), for use in pressure-sensitive adhesives; (8) in § 175.300 (21 CFR 175.300), as a component of resinous and polymeric coatings; (9) in § 176.210 (21 CFR 176.210), as a component of defoaming agents used in the manufacture of paper and paperboard; (10) in § 177.1010 (21 CFR 177.1010), as a component of semirigid and rigid acrylic and modified acrylic plastic; (11) in § 177.2260 (21 CFR 177.2260), for use in filters, resin-bonded; (12) in § 177.2600 (21 CFR 177.2600), as a component of rubber articles intended for repeated use; (13) in § 178.3570 (21 CFR 178.3570), for use in lubricants with incidental food contact; (14) in § 181.24 (21 CFR 181.24), as a substance employed in the manufacture of food-packaging materials; and (15) in §§ 175.380, 175.390, 176.170, 177.1210, and 177.1350 (21 CFR 175.380, 175.390, 176.170, 177.1210, and 177.1350), by cross-reference, for use as a component of xylene-formaldehyde resins condensed with 4,4'-isopropylidenediphenol - epichlorohydrin epoxy resins, as a component of zinc-silicon dioxide matrix coatings, as a component of paper and paperboard in contact with aqueous and fatty foods, as a component of closures with sealing gaskets for food containers, and as a component of ethylene-vinyl acetate copolymers, respectively.

The Food and Drug Administration is conducting a comprehensive study of direct human food ingredients classified as GRAS or subject to a prior sanction. The criteria for determining whether food ingredients are GRAS or subject to prior sanction and the procedures for the review of GRAS ingredients are set forth in §§ 170.30, 170.35, 170.38, 180.1, 181.5, Part 184 and Part 186 (21 CFR 170.30, 170.35, 170.38, 180.1, 181.5, Part 184 and Part 186). Under this review, the safety of BHT has been evaluated.

Butylated hydroxytoluene has been the subject of a search of the scientific literature from 1920 to the present. The search encompassed scientific articles that considered the following: (1) chemical toxicity, (2) occupational hazards, (3) metabolism, (4) reaction products, (5) degradation products, (6) reported carcinogenicity, teratogenicity, or mutagenicity, (7) dose response, (8) reproductive effects, (9) histology, (10) embryology, (11) behavioral effects, (12) detection, and (13) processing of the substance. A total of 476 abstracts on BHT were reviewed and 58 particularly pertinent reports from the literature survey have been summarized in a scientific literature review.

A representative cross-section of food manufacturers was surveyed by the National Academy of Sciences/National Research Council (NAS/NRC) to determine the specific foods in which BHT was used and at what levels. Information on consumer consumption of these foods was then obtained and combined with the available use information to obtain an estimate of the consumer exposure to BHT. Its use in food in 1970 is reported to have been 596,748 pounds. This is twice the amount reported in 1960. It is also reported that the 1970 figure is only 60 to 70 percent of the total used in food. To make calculations based on the total poundage used, the 60-percent weight figure was used to estimate a 100-percent estimated poundage. The per-capita-per-day average intake was then calculated to be 6.2 milligrams of BHT. This figure is, however, about half the value that has been concluded to be the potential average level of consumption by consumers in the age group 2 to 65 years.

The Select Committee on GRAS Substances (SCOGS) (a subcommittee of the Federation of American Societies for Experimental Biology) has reviewed and evaluated all available data and information on BHT as a food ingredient. The scientific literature review shows the following information, as summarized in the report of the Select Committee:

After oral administration of a single dose of BHT to rats it was almost completely excreted within 4 days. It was also found that 20 to 40 percent of the administered dose was excreted in the urine and an additional 20 to 40 percent excreted in the feces. Since BHT is excreted in the bile, biliary excretion after absorption could account for much of the material in the feces. Extensive enterohepatic recirculation of BHT has been demonstrated in rats. Absorption and excretion studies have been carried out in man. Daniel et al. administered 40 mg of BHT orally and found that about 67 percent of the material administered was excreted in the urine within 11 days. These data indicate that BHT is readily absorbed after oral administration in humans. However, it appears that no considerable enterohepatic circulation occurs in man.

The problem of tissue accumulation also has been investigated in the rat. Rats fed 0.5 to 1 percent BHT in a diet for up to 50 days were sacrificed and the BHT content of their fat and liver measured. It was found that only a small amount (less than 50 ppm) of BHT accumulated in the fat. These data demonstrate that BHT does not accumulate in fatty tissues. The half-life for stored BHT was 7–10 days in the rat. However, extracts of human adipose tissue contained from 0.15–1.30 ppm BHT; the compound was 5–6 times more concentrated in Americans than in Englishmen.

The metabolic fate of BHT has been studied in several animal species, including man. In general, the major metabolic products have been shown to be 3,5-di-tert-butyl-4-hydroxy benzoic acid, its glucuronide and S-(3,5-di-tert-butyl-4-hydroxybenzyl)-N-acetylcysteine. Gilbert and Goldberg demonstrated that in the rat, BHT retention is reduced after the induction of hepatic microsomal mixed-function oxidases. This enzyme system can be induced by prior BHT treatment and, therefore, it was concluded that animals subjected to prolonged BHT administration metabolize the substance at a higher rate. An enzyme that oxidizes BHT is induced in the liver by BHT ingestion. The reaction product is 2,6-di-tert-butyl-4-hydroxymethyl phenol.

It is noteworthy that an oxidation product of BHT, 3,3',5,5'-tetra bis-(tert-butyl) stilbenequinone, was found in cereal products and snack foods aged at elevated temperatures. This compound was found to be present in the range of 0.01 ppm in such foods after aging, but no data were presented concerning its metabolism or toxicology.

The oral lethal dose and LD_{50} of BHT in various animal species have been reported. In the rat, the LD_{50} is 1.7 and 2.0 g per kg in males and females, respectively. In the rabbit, the lethal dose is greater than 2 g per kg and in the guinea pig, the lethal dose is approximately 10.7 g per kg. Other investigators have reported the oral LD_{50} of BHT in rats, mice, rabbits and hamsters to be 2250, 1800, 3200, and 2820 mg per kg, respectively.

Short-term toxicity studies have been carried out with BHT by a number of investigators. BHT has been fed to dogs at levels of 170 to 940 mg per kg per day for 12 months and to rats at a level of 0.2 percent in the diet for 90 days with no discernible toxic effects. Rats fed 0.1 and 0.5 percent BHT in the diet for 6 months or less exhibited significant reduction in the growth rate of male animals only when the BHT was incorporated in a diet supplemented with 20 percent lard. These investigators also observed an increased incidence of alopecia in rats fed 0.5 percent BHT in the diet. This effect could only be observed when the BHT was fed in lard; the response was not manifested in rats fed BHT in coconut oil. Even at a dietary level of 0.5 percent, BHT had no effect on one reproductive cycle in the rat and no effect on the histology of spleen, kidney, liver, testes, or skin. However, there was significant increase in the weight of the liver relative to body weight and the mean absolute weight of the liver was also increased.

Several other investigators have noted that the administration of BHT affects liver

weight. Hepatomegaly, accompanied by increased proliferation of the smooth endoplasmic reticulum and by increased mitotic activity, was observed in rats fed 2.8 mg BHT per calorie of diet for 22 of 24 days; another group of rats received 1.4 g per kg body weight as a single dose. This effect seemed to occur at about 200 times the acceptable dose (0.5 to 2.0 mg per kg) estimated by FAO/WHO. In doses of 150 to 300 mg per kg per day, there was an increase in absolute and relative liver weights in the rat. The same authors showed that at 0.5 percent BHT in the diet for 10 days there was an increase in liver weight but no statistically significant increase when the dietary level was 0.5 percent for 8 weeks.

In recent work young rhesus monkeys administered 500 mg of BHT in corn oil per kg daily by gastric intubation for 4 weeks, showed no clinical abnormalities but exhibited liver hypertrophy, proliferation of hepatic endoplasmic reticulum, and nucleolar fragmentation in many of the hepatic nuclei. The observed effects were less pronounced with BHT than with BHA at the same dosage. At doses of 50 mg per kg, hepatic cytoplasmic changes were less obvious and no nucleolar changes were observed. No significant effect was observed on a number of organ weights, including the liver, in rats fed 0.5 percent BHT. No evidence of hepatotoxicity was found in rats fed 0.1 percent BHT for 16 weeks. A consistent no-effect level with respect to liver enlargement of 25 mg per kg per day of BHT has been reported.

Since there is little doubt that BHT increases the liver weight of animals fed adequate doses of BHT in their diet, it can be expected that this effect can be evaluated with biochemical measurements. It has been demonstrated that, in addition to liver weight, total protein and ribonucleic acid increased in the livers of rats fed 0.5 percent BHT in the diet for 68 days. Mixed function oxidases in the microsomes of liver obtained from animals fed BHT have also been shown to have increased enzyme activity. The synthesis of drug-metabolizing enzymes is induced. Biphenyl 4-hydroxylase activity was increased at concentrations of BHT that did not increase liver size. Cytochrome oxidase activity of liver tissue decreased 20 percent when BHT was fed to rats at the 0.5 percent level for 10 days. BHT at a level of 500 mg per kg per day had a striking effect on ascorbic acid excretion; this condition remained elevated for 1 week after dosage of BHT was ended. Increase in liver weight and depression in glucose-6-phosphatase activity were no longer manifest after a 14-day recovery period following cessation of administration of BHT. But, whereas liver weight returned to normal within two weeks of maximum drug effect in rats, other parameters such as elevated DNA content, number of liver cell nuclei, and percentage of tetraploid nuclei remained relatively constant over a 7-week post-treatment period. Takanaka et al. fed BHT to rats at levels of 50 to 150 mg per kg per day and observed that at the high doses BHT increased liver weight but at the low dose there was no such increase in weight but a substantial increase in activity of drug metabolizing enzymes, aminopyrine N-demethylase, hexobarbital hydroxylase, and butynamine N-demethylase ($C_{12}H_{17}N.HCl$). There was no direct relationship between increase in activity of drug metabolizing enzymes and increase in liver weight. The increase in drug metabolizing activity induced by feeding BHT was reflected in reduction of the activity of pentobarbital by about 60 percent.

The consensus is that the effect of BHT on liver enlargement represents a type of hypertrophy, which is fully reversible and without toxicological significance. However, a somewhat different view notes that increases in liver size and increases in drug-metabolizing enzymes can be interpreted as an adaptive mechanism. With two substances other than BHT it has been demonstrated experimentally that a point is reached when adaptation fails, a new condition develops, and injury commences. It does not appear that "fully adapted" livers have been challenged by additional doses of BHT or, more importantly, other chemicals. Such information should be available before one can conclude that BHT-induced liver hypertrophy is completely harmless.

The induction of hepatic microsomal enzymes is an established effect of BHT. The pharmacological implications of microsomal enzyme induction have been described. Others have discussed the role of microsomal hydroxylases in polycyclic hydrocarbon carcinogenesis. It is also apparent that microsomal enzymes can be induced in such tissues as the intestinal tract, lung, adrenals and kidney. The effects of BHT on these extra-hepatic systems have not been reported. While probably the overall contribution of these sites to the metabolism and disposition of foreign substances is small, the effects of microsomal enzyme induction in these tissues, exposed to potentially carcinogenic substances, are unknown. There are observations indicating that aryl hydrocarbon hydroxylase is responsible for the conversion of some polycylic hydrocarbons to toxic and carcinogenic forms. It is also known that the mixed-function oxidases in the microsomes can affect the metabolic transformation of steroid hormones. BHT may stimulate, as do other microsomal enzyme inducers, the activity of steroid hydroxylating enzymes. Such stimulation could affect reproduction.

BHT has been shown to influence lysosomal membranes and these data are of interest as related to the role of lysosomes in physiologic and pathologic processes. However, before any interpretation of the data concerning the effects of BHT on lysosomes can be attempted, it must be pointed out that in the study in question too few animals and too many dose schedules were employed. No conclusions ought to be drawn before these experiments have been validated using more appropriate numbers of animals and experimental conditions.

It has been reported recently that in large doses administered parenterally BHT is capable of producing lung damage in mice. Histological examination of lung tissue revealed thickened intra-alveolar septa, congestion, and a general pattern of tissue disorganization; the lesions seemed to be dose-dependent and appeared to be reversible. Alterations in the lung were generally observed at a threshold dose of 40 mg per kg. These data await confirmation from studies by other investigators. However, it is interesting to note that similar pulmonary changes have been found in dogs fed 1.4–4.7g BHT per kg per day for 28 days. These investigators interpreted their finding as not being due to BHT, but rather to the way the animals were killed (by air embolism). This explanation cannot be substantiated without further investigations on the eventual effects of BHT on lung tissue.

Long-term feeding studies have been carried out in several species. Rats maintained on diets containing up to 1 percent BHT for 2 years exhibited no evidence of pathology and carcinogenicity. Mice have been fed 0.5 percent BHT in the diet for 28 months; no pathology was observed. Rats maintained on 0.1 percent BHT in coconut oil for 2 years exhibited no differences between control and experimental animals.

BHT had no clearly discernible effect on nidation or maternal or fetal survival when administered in daily amounts up to 180 mg per kg (day 6 through day 15 of gestation) in mice, up to 225 mg per kg (day 6 through day 15 of gestation) in rats, and up to 280 mg per kg (day 6 through day 10 of gestation) in hamsters.

A multigeneration study in rats feed 300, 1000, and 3000 ppm BHT in their diet has been conducted. Females were mated at 100 days with males maintained on the same regimen. Observations included complete blood counts, cell indices, reticulocyte count, prothrombin time, serum glutamic-pyruvic transaminase, serum glutamic-oxaloacetic transaminase, fasted blood sugar, serum alkaline phosphatase, blood urea nitrogen, icterus index, urine albumin, reducing substances and microscopic elements, organ weights of liver, kidney, spleen, gonads, heart, brain, thyroid, and adrenal, and microscopic pathologic studies of heart, trachea, lungs, liver, pancreas, stomach, small intestine, caecum, colon, spleen, cervical and mesenteric lymph nodes, kidney, urinary bladder, testes, ovaries, prostate, uterus, pituitary gland, submaxillary gland, thyroid, parathyroid, adrenals, skeletal muscle, bone marrow of sternum and femur, sciatic nerve, brain, seminal vesicles, esophagus, and spinal cord. These tests were conducted on animals of the first and second generations. The investigators found that at a level of 3000 ppm of BHT the growth rates of parents and young were depressed 10 to 20 percent. They also found a 20 percent increase in serum cholesterol level after 28 weeks, but no elevation after 10 weeks, and a 10 to 20 percent increase in relative liver weight after 42 weeks. All other observations at 3000 ppm and all observations at 1000 and 300 ppm were comparable with those of the controls.

All criteria of reproduction were normal and no teratogenic effects were detected. They suggest that by all criteria in 2 generations of rats and their offspring, a "no-effect" level of 1000 ppm BHT in a high fat diet is established.

Feeding tests with mice and rats demonstrated no evidence of significant embryo toxicity in doses of 1000 mg per kg as a single dose on a specific day of pregnancy or up to 750 mg per kg in daily doses both before and during pregrancy. Observations included mating and fertility indices, number of corpora lutea, implantation and resorption sites, and examination of fetuses for gross skeletal and soft tissue abnormalities. In another report the investigators were unable to demonstrate any effect on fertility index, litter size or viability index in rats fed 0.125 to 0.313 percent BHT in the diet while 1.55 percent caused drastic weight loss or fetal deaths. No effect on one reproductive cycle of the rat was observed but anophthalmia was noted in the young of rats fed BHT at levels up to 0.5 percent of the diet (equivalent to 250 mg per kg) of body weight. One of these investigators as well as another laboratory were unable to repeat these results in subseqeunt studies. It was suggested by the latter that the original observations may have been due to avitaminosis A rather than to the feeding of BHT. BHT fed in a single dose of 0.5 g in the diet after mating was reported to have definite prophylactic value in reducing the frequency of resorptions in the rat.

The possible mutagenic effects of BHT have been tested. BHT did not produce any measurable mutagenic response or alteration in the recombination frequency for *Saccharomyces cerevisiae* in either the host-mediated assay or the associated in vitro tests. BHT exhibited no adverse effect on metaphase chromosomes from rat bone marrow in the treatment range of 30 to 1400 mg per kg for 6 to 48 hours. BHT caused a sharp increase in the percentage of aberrant hu-

man embryonic lung cells in tissue culture in the range of 2.5 to 250 μg per ml. No consistent responses occurred to suggest that BHT is mutagenic in the rat as measured by the dominant lethal gene test. Intraperitoneally administered BHT in a dose of 1000 mg per kg also failed to indicate mutagenicity by a dominant lethal test in mice.

Monolayers of monkey kidney cells have been exposed to concentrations of BHT varying from 0.1 mM to 0.136 mM. Inhibition of cell multiplication and a substantial depression of the incorporation of radioactive precursors into DNA, RNA and protein were observed. However, both effects were reversible and no morphological alterations in the structure of the exposed cells were observed. At concentrations up to 30 mg of BHT per g of cells, no visible cytopathological changes were observed. Another laboratory has stressed the point that inhibition of cell multiplication was fully reversible and could be repeated several times in the same monkey kidney cell culture. It was concluded that the effect of BHT on the incorporation of precursors into macromolecules was not a specific effect of BHT and that the effects occur only at rather high concentrations of BHT in the culture medium. It is not established to what extent tissue culture techniques can be used to evaluate or to predict toxicity. Therefore, the effects of BHT in tissue culture cannot be interpreted at this time.

No reports of studies of the carcinogenicity of BHT have been found but there are reports suggesting that BHT interferes with the induction of tumors in two strains of rats by *p*-dimethylaminoazobenzene, and that BHT suppresses the processes of protein and nucleic acid biosynthesis in cancer cells in vivo in mice with Ehrlich's ascites carcinoma and solid hepatoma 22.

Allergies to BHT in food have not been reported.

All of the available safety information on BHT has been carefully evaluated by qualified scientists of the Select Committee on GRAS Substances selected by the Life Sciences Research Office of the Federation of American Societies for Experimental Biology (FASEB). It is the opinion of the Select Committee that:

The information on the metabolism and toxicology of butylated hydroxytoluene (BHT) is extensive. There is ample evidence of efficacy of this compound as an antioxidant. It has been suggested that BHT in fatty tissue may even have some effect similar to that of vitamin E. There are some data to indicate that BHT in diets reduces the incidence of certain tumors and the rate of fetal absorption in the rat.

The available evidence does not support the view that BHT interferes in any specific way with cellular metabolism. There is no evidence that demonstrates that BHT causes frank biochemical lesions in the liver; moreover, it is obvious that high doses of BHT are needed to induce biochemical alterations. With 0.1 percent BHT in the diet in rats there are differing data in the literature concerning the effect of such treatment on liver growth and liver enzymes. At 0.05 percent in the diet, no toxic effects are discernible. This "no-effect level" is equivalent to 50 mg per kg per day.

However, BHT increases the level of microsomal enzymes in the liver. The significance of this increase raises certain questions. The liver weight of animals fed BHT is increased and some interpret this enlargement as hypertrophy which is fully reversible and without apparent toxicological significance. But a point could occur at which adaptation fails, a new condition is created, and injury commences. It does not appear that "fullyadapted" livers have been challenged by additional doses of BHT or, more importantly, other chemicals. In view of the widespread use, for example, of oral contraceptives, it is felt that information should be available on the effect of challenging fully adapted livers with compounds which are themselves metabolized by microsomal hydroxylases. Therefore, there is the need to determine the effects of BHT at levels now present in foods under conditions where steroid hormones or oral contraceptives are being ingested.

Other tissues such as lung and the gastrointestinal mucosa, in addition to liver, can respond to enzyme inducing agents. More information is required on the inducing properties of BHT on extrahepatic organs. If induction should be found to occur, it would be necessary to determine the effect of such enzymes on the conversion of other ingested materials into toxic substances or carcinogens.

It is the further conclusion of the Select Committee that: "while no evidence in the available information on butylated hydroxytoluene (BHT) demonstrates a hazard to the public when it is used at levels that are now current and in the manner now practiced, uncertainties exist requiring that additional studies should be conducted."

Before completion of his own evaluation of the available information on BHT, the Commissioner received a citizen petition and several additional studies on BHT for his consideration. A summary of this information is described below:

1. The first of these new studies was an additional teratogenic study conducted by the WARF Institute of Madison, Wisconsin, to determine the toxic and teratogenic effects of BHT when injected into the air cell and yolk of fertile chicken eggs. The report stated that a dose-related mortality was observed. However, the solvent contribution to observed mortality was considerable. It was also noted that the abnormalities found in this experiment were of relatively low incidence and had been seen at the same levels in control eggs or in the flock background. Because of the apparent increase in severity of the anomalies, it was concluded by the investigator that this may suggest a need to further evaluate the test sample. No additional teratologic testing of BHT is contemplated with this technique by the Food and Drug Administration.

2. Tyndall et al. reported (International Journal of Cancer, 16:184–191, 1975) that there are early alterations in plasma esterases with associated pathology following oral administration to BALB/c mice of BHT singly or in combination with diethylnitrosamine (DENA). Caesarean-derived 4-week-old male and female mice were divided into four groups. The control group was fed lab chow only, while the other three groups were fed the following: (1) Lab chow with 0.75 percent BHT; (2) lab chow with 0.75 percent BHT and DENA added to water; and (3) lab chow, nothing added, and DENA in water. The DENA ingested by the mice was approximately 7 to 8 milligrams per kilogram (mg/kg) body weight daily for a total of 350 to 400 mg/kg body weight over a 7-week exposure period. The study continued for 20 weeks. Mice treated with DENA or with DENA and BHT showed both stomach and lung tumors, whereas untreated controls and mice fed only BHT were free of tumors. Some early changes in bile duct epithelium were detected in mice at 20 weeks that had been fed only BHT-treated food. The observations that the food additive BHT enhances the severity of early esterase alterations and subsequent carcinogenic action of diethylnitrosamine when fed concomitantly were considered noteworthy. BHT was also found to enhance greatly the activity of several plasma esterases when ingested alone.

3. The citizen petition requests FDA to revise the maximum conditional acceptable daily intake (ADI) of the antioxidants BHA and BHT, as determined by FDA and the Joint Food and Agriculture Organization/World Health Organization Expert Committee on Food Additives Sixth Report, until more extensive research can determine the effects of these food additives in man. The petitioner, in support of this request, reiterated the studies described in this preamble and those presented in the report of the Select Committee. The response of the Commissioner to the petitioner advised that FDA does not adopt nor have control over FAO/WHO determinations of ADI's for food additives nor can FDA unilaterally modify an ADI. The Commissioner also informed the petitioner of the GRAS review of BHT and concluded that the petition should be denied.

4. A tier I mutagenic study was conducted for FDA by Litton Bionetics Inc. (April 1975). FDA toxicologists evaluated the data and concluded that BHT exhibited no mutagenic activity for Salmonella or Saccharomyce, with or without metabolic activation, in any of the tests reported.

5. In a study by Clapp et al. (Food and Cosmetics Toxicology, 12:367–371, 1974), eleven male BALB/c mice maintained on a diet containing 0.75 percent BHT for a period of 16 months had a 63.6 percent incidence of lung tumors in the test group (7 tumor-bearing mice in 11) compared with 24 percent in controls (6 tumor-bearing mice in 25). The number of tumors per mouse was greater in the group that received both BHT and DENA (4 percent in drinking water) than with either compound mentioned above. It was also noted that reticulum cell sarcoma incidence was reduced in mice that received BHT. No liver tumors were seen in either group.

In a more recent report by Clapp, Kline, and Satterfield (published abstract No. 669, Proceedings of the American Association for Cancer Research, 17:168, 1976), the significance of the above observations was determined in a larger group of 400 BALB/c mice of both sexes. This study showed, on histological examination, that BHT had no effect on the incidence of lung tumors in either sex.

6. A recent unpublished study by Brooks, T. M., P. F. Hunt, E. Thorpe, and A. T. T. Walker (Shell Research Ltd., Tunstall Laboratory, Sitting-bourne, Kent, England) reported a positive increase in the risk of lung neoplasia with increasing exposure to BHT. CF1 strain mice, 1-month old at the beginning of the study, were fed 1,000 ppm BHT. After 1 month, the mice either continued at this level or received 2,500 ppm or 5,000 ppm BHT. Four weeks later, a second group was raised from 1,000 ppm to 5,000 ppm BHT, and all groups were maintained on these test diets until examined at 100-weeks of age. Histopathological findings were noted in the liver, lung, and ovary. Only the lung response was considered tumorgenic, the liver response cytomegaly. With 24 male and 24 female mice in each group, the overall incidence in lung neoplasia in controls was 46.8 percent compared with 53.2 percent in the 1,000 ppm group, 73.9 percent in the 2,500 ppm group, and 75 percent in the combined 5,000 ppm group (groups raised from 1,000 ppm to 5,000 ppm BHT either at 1 months or 2 months). There was, accordingly, a dose-related increase in tumorigenic response that was said to be statistically significant by an actuarial-likelihood ratio calculation. Additionally, there was said to be an apparent increase in ovarian tumors in BHT-treated female mice. The authors also concluded that there were no morphological features to distinguish the lung tumors in treated mice from those in controls.

After thorough review of the above information, including the report of the Select Committee, the Commissioner has concluded that several issues must be resolved before a final determination can be made on BHT. The first issue concerns the and the absence of any reported data on the metabolism of BHT in the mouse. To resolve this issue, the Commissioner proposes that appropriate metabolism studies be undertaken in the mouse to provide information on the excretion patterns of BHT in this animal as compared to man. If similar metabolism is found, a long-term feeding study would then be required to resolve the tumorigenic potential of BHT in a strain of mice that does not have a normal high incidence of lung adenomas. If the mouse is found not to metabolize BHT through an excretion pattern similar to man, an appropriate animal species would then have to be found that does metabolize BHT in this manner. A long-term chronic feeding study would then have to be undertaken in the appropriate animal species. This study would also address the potential for enzyme induction effects of BHT on the liver of the selected animal species.

If BHT is found to induce liver microsomal enbymes in this animal, then a study will be needed to establish a threshold dose-effect level for BHT in the, and to provide further information on the possible enzyme-inducing effect of BHT on the lung, kidney, and gastrointestinal mucosa. A study that will provide further information on the challenge of fully adapted livers to both BHT and a compound that is metabolized by by microsomal hydroxylases, such a hexobarbital, would also have to be conducted in the event that liver enzyme induction is found to occur.

Although concern was not expressed by the Select Committee over the oxidation product of BHT—3,3', 5,5'-tetra bis-*tert*-butyl) stilbenequinone, found in cereals and snack foods (and subsequently in heated oils), the Commissioner concludes that further toxicological information is required on this and similar degradation products. The Commissioner therefore proposes to require that a short-term (90-day, with in-utero exposed animals) feeding study be undertaken with repetitively cooked fats containing a high level of BHT and fed to the animal species named above. A dosage level of heated oil, containing a high level of BHT, would also be incorporated into the long-term feeding study to investigate further any chronic effects of these potential degradation products.

Although the studies described above appear extensive, the Commissioner notes that the primary intent of these studies is to resolve the question of metabolism of BHT in man and test animals. Questions regarding the potential lung tumorigenicity and enzyme-inducing effects of BHT are only significant if they are observed in an animal species that metabolizes BHT in a manner similar to man. From the animal data now available, the Commissioner further concludes that there is a reasonable certainty that the continued use of BHT, under conditions proposed in this regulation, will not present any significant risk to consumers for the period of time required to complete the studies, and, accordingly, continued limited use of BHT would be authorized under the proposal.

Copies of the studies named above, the Scientific Literature Review on BHT, reports of the teratology and mutagenic screening tests for the ingredient, and the report of the FASEB Select Committee are available for review at the office of the Hearing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, Md. 20857. Several of these reports may also be purchased from the National Technical Information Service (NTIS), 5285 Port Royal Rd., Springfield, Va. 22151, as follows:

Title	Order No.	Cost (dollars)
Butylated hydroxytoluene (BHT) (Scientific Literature Review).	PB-221-202	4.50
BHT (FASEB evaluation).	PB-259-917/AS	4.00
BHT (teratology test)	PB-221-782	3.75
BHT (mutagenic test) (X).	PB-221-827	5.45
BHT (mutagenic test) (Y).	PB-245-487/AS	3.75

NOTE.—(X) = Cytogenetic, dominant lethal, host mediated assay. (Y) = Tier I (microbial) test.

In accordance with § 180.1, the Commissioner concludes that the primary responsibility for undertaking the studies on BHT shall lie with the interested parties. If no commitment to undertake the studies is made to FDA within 60 days after the adoption of a final regulation based upon this proposal, an order will be published promptly in the FEDERAL REGISTER that will revoke all food additive regulations for this ingredient and advise the public of the agency's intentions to pursue appropriate regulatory action regarding all uses of BHT under the adulteration provisions of the Federal Food, Drug, and Cosmetic Act.

The Commissioner further concludes that the unresolved issues concerning BHT warrant the following proposed actions:

1. The continued limited use of BHT as a direct food additive, GRAS substance, and prior-sanctioned substance should be permitted under an interim food additive regulation pending completion of additional studies.

2. Indirect uses of BHT should be permitted under the interim food additive regulations subject to the requirement that the use conforms to current good manufacturing practice.

3. Uses of BHT as an optional ingredient in FDA standards of identity, and uses authorized by the U.S. Department of Agriculture under the Meat Inspection Act and the Poultry Inspection Act should conform to the interim food additive regulation.

4. Maximum levels of use reported in the NAS/NRC survey of food manufacturers will not be permitted by the interim regulation where such levels exceed 200 ppm of the oil content of the food, unless higher levels of use are specifically permitted by other regulations in Subchapter B of Title 21 of the Code of Federal Regulations.

This proposal does not affect any present use of BHT for pet food or animal feed.

The Commissioner has carefully considered the environmental effects of the proposed regulation and, because the proposed action will not significantly affect the quality of the human environment, has concluded that an environmental impact statement is not required. A copy of the environmental impact assessment is on file with the Hearing Clerk, Food and Drug Administration.

Therefore, under the Federal Food, Drug, and Cosmetic Act (secs. 201(s), 409, 701(a), 52 Stat. 1055, 72 Stat. 1784–1788 as amended, 52 Stat. 1055 (21 U.S.C. 321(s), 348, 371(a))) and under authority delegated to the Commissioner (21 CFR 5.1), it is proposed that Parts 137, 166, 172, 173, 175, 176, 177, 178, 180, 181, and 182 be amended as follows:

PART 137—CEREAL FLOURS AND RELATED PRODUCTS

1. Part 137 is amended in § 137.350 by revising paragraph (a)(4) to read as follows:

§ 137.350 Enriched rice.

(a) * * *

(4) In the case of enriched parboiled rice, butylated hydroxytoluene may be added as an optional ingredient in an

amount not to exceed 0.0033 percent by weight of the finished food. The use of butylated hydroxytoluene under this section shall comply with the provisions of § 180.20 of this chapter.

* * * * *

PART 166—MARGARINE

2. Part 166 is amended in § 166.110 by revising paragraph (a)(5) to read as follows:

§ 166.110 Margarine.

(a) * * *

(5) Preservatives including, but not limited to the following within these maximum amounts in percent by weight of the finished food: Sorbic acid, benzoic acid and their sodium, potassium, and calcium salts, individually, 0.1 percent, or in combination, 0.2 percent, expressed as the acids; calcium disodium EDTA, 0.0075 percent; propyl, octyl, and dodecyl gallates, BHT, BHA, ascorbyl palmitate, ascorbyl stearate, all individually or in combination, 0.02 percent; stearyl citrate, 0.15 percent; isopropyl citrate mixture, 0.02 percent. The use of butylated hydroxytoluene (BHT) under this section shall comply with the provisions of § 180.20 of this chapter.

* * * * *

PART 172—FOOD ADDITIVES PERMITTED FOR DIRECT ADDITION TO FOOD FOR HUMAN CONSUMPTION

3. Part 172 is amended:

a. In § 172.115 by revising paragraph (b) to read as follows:

§ 172.115 BHT.

* * * * *

(b) As an antioxidant in foods under the interim food additive provisions of § 180.20 of this chapter. BHT is used alone or in combination with BHA in the following:

Dehydrated potato shreds.
Dry breakfast cereals.
Emulsion stabilizers for shortenings.
Potato flakes.
Potato granules.
Sweetpotato flakes.

* * * * *

b. In § 172.615(a) by revising the entry for butylated hydroxytoluene under the heading "Antioxidants" in the table to read as follows:

§ 172.615 Chewing gum base.

* * * * *

(a) * * *

* * * * *

PLASTICIZING MATERIALS (SOFTENERS)

* * * * *

ANTIOXIDANTS

* * * * *	
Butylated hydroxytoluene	Not to exceed antioxidant content of 0.1 percent when used alone or in any combination. Interim food additive regulation § 180.20 of this chapter.
* * * * *	

PART 173—SECONDARY DIRECT FOOD ADDITIVES PERMITTED IN FOOD FOR HUMAN CONSUMPTION

4. Part 173 is amended in § 173.340 (a)(3) by revising the entry for BHT in the table to read as follows:

§ 173.340 Defoaming agents.

* * * * *

(a) * * *

(3) * * *

Substances	*Limitations*
* * * *	
BHT	As an antioxidant, not to exceed 0.1 percent by weight of defoamer. Interim food additive regulation § 180.20 of this chapter.
* * * *	

PART 175—INDIRECT FOOD ADDITIVES: ADHESIVE COATINGS AND COMPONENTS

5. Part 175 is amended:

a. In § 175.105, paragraph (c)(5) is amended by revising the entry for BHT (butylated hydroxytoluene), to read as follows:

§ 175.105 Adhesives.

* * * * *

(c) * * *

(5) * * *

COMPONENTS OF ADHESIVES

Substances	*Limitations*
* * * *	
BHT (butylated hydroxytoluene).	Interim food additive regulation § 180.20 of this chapter.
* * * *	

b. In § 175.125, paragraph (b)(2) is amended by revising the entry for BHT, to read as follows:

§ 175.125 Pressure-sensitive adhesives.

* * * * *

(b) * * *

(2) * * *

BHT, interim food additive regulation § 180.20 of this chapter.

* * * * *

c. In § 175.300, paragraph (b)(3)(xxx) is amended by revising the entry for butylated hydroxytoluene in the listing, to read as follows:

§ 175.300 Resinous and polymeric coatings.

* * * * *

(b) * * *

(3) * * *

(xxx) * * *

Butylated hydroxytoluene, interim food additive regulation § 180.20 of this chapter.

* * * * *

PART 176—INDIRECT FOOD ADDITIVES: PAPER AND PAPERBOARD COMPONENTS

6. Part 176 is amended in § 176.210(d)(3) by revising the entry for butylated hydroxytoluene to read as follows:

§ 176.210 Defoaming agents used in the manufacture of paper and paperboard.

* * * * *

(d) * * *

(3) * * *

Butylated hydroxytoluene, interim food additive regulation § 180.20 of this chapter.

* * * * *

PART 177—INDIRECT FOOD ADDITIVES: POLYMERS

7. Part 177 is amended:

a. In § 177.2260, paragraph (d)(2) is amended by revising the entry for BHT to read as follows:

§ 177.2260 Filters, resin-bonded.

* * * * *

(d) * * *

(2) * * *

BHT, interim food additive regulation § 180.20 of this chapter.

* * * * *

b. In § 177.2600, paragraph (c)(4)(iii) is amended by revising the entry for BHT (butylated hydroxytoluene), to read as follows:

§ 177.2600 Rubber articles intended for repeated use.

* * * * *

(c) * * *

(4) * * *

(iii) * * *

BHT (butylated hydroxytoluene), interim food additive regulation § 180.20 of this chapter.

* * * * *

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

8. Part 178 is amended in § 178.3570(a)(3) by revising the entry for BHT to read as follows:

§ 178.3570 Lubricants with incidental food contact.

* * * * *

(a) * * *

(3) * * *

Substances	*Limitations*
BHT	Interim food additive regulation § 180.20 of this chapter.

* * * * *

PART 180—INTERIM FOOD ADDITIVES PERMITTED IN FOOD ON AN INTERIM BASIS OR IN CONTACT WITH FOOD PENDING ADDITIONAL STUDY

9. Part 180 is amended by adding new § 180.20, to read as follows:

§ 180.20 Butylated hydroxytoluene (BHT).

(a) Butylated hydroxytoluene ($C_{15}H_{24}O$, CAS Reg. No. 000128-37-0) is the chemical 3,4-di-*tert*-butyl-4-hydroxytoluene. BHT is prepared from *p*-cresol and isobutylene.

(b) The food additive meets the specifications of the Food Chemicals codex, 2d ed. (1972).[1]

[1] Copies may be obtained from: National Academy of Sciences, 2101 Constitution Ave. NW., Washington, D.C. 20037.

(c) The food additive may be used as a component of food-contact surfaces in accordance with good manufacturing practice.

(d) The ingredient is used directly in food, as served, not to exceed the following maximum levels:

Maximum usage levels permitted

Food categories	Parts per million	Function
Breakfast cereals (dry only), § 170.3(n)(4) of this chapter.	50.0	Antioxidant, § 170.3(o)(3) of this chapter.
Chewing gum base (softeners), § 172.615 of this chapter.	1,000.0	Do.
Defoaming agents (used in processing beet sugar and yeast), § 173.340(a)(3) of this chapter.	1,000.0	Do.
Fats and oils, § 170.3(n)(12) of this chapter	200.0	Do.
Potatoes, dehydrated flakes, shreds, § 172.115(b) of this chapter.	50.0	Do.
Potatoes, granules, § 172.115(b) of this chapter	10.0	Do.
Sweetpotatoes, flakes, § 172.115(b) of this chapter	50.0	Do.
All other categories [1]	200.0	Antioxidant, 170.3(o)(3) of this chapter; flavoring agent and adjuvant, § 170.3(o)(12) of this chapter.

[1] Total content of antioxidants not over 200 p/m of fat or oil content, including essential (volatile) oil content of the food.

(e) To assure safe use of the additive in addition to other information required by the act:

(1) The label of the additive and any intermediate mix shall bear:

(i) The name of the additive.

(ii) A statement of the concentration of the additive, expressed as "Butylated hydroxytoluene", "BHT", etc., in any intermediate mix; or other information to permit a food processor to determine independently that use of the ingredient will comply with this section.

(iii) Adequate directions for use to provide a final food product that complies with the provisions of this section.

(2) The label of any finished food product containing the additive shall bear the name of the additive, e.g., "Butylated hydroxytoluene" or "BHT" unless exempted by specific regulation.

(f) In accordance with § 180.1, adequate and appropriate feeding studies shall be undertaken for this food additive. Interested persons shall agree in writing to undertake those studies by (60 days after date of final regulation). Continued use of BHT is contingent upon the timely filing of adequate progress reports of such tests and no indication of an increased risk to public health during the test period.

PART 181—PRIOR-SANCTIONED FOOD INGREDIENTS

10. Part 181 is amended in § 181.24 by revising the entry for butylated hydroxytoluene in the listing to read as follows:

§181.24 **Antioxidants.**

* * * * *

Butylated hydroxytoluene. Interim food additive regulation § 180.20 of this chapter.

* * * * *

PART 182—SUBSTANCES GENERALLY RECOGNIZED AS SAFE

§ 182.3173 [Revoked]

11. Part 182 is amended by revoking § 182.3173 Butylated hydroxytoluene.

The Commissioner gives notice that he is unaware of any prior sanction for the use of BHT in foods under conditions different from those identified in this proposal. Any person who intends to assert or rely on such a sanction shall submit proof of its existence in response to this proposal. The regulation proposed above will constitute a determination that excluded uses would result in adulteration of the food in violation of section 402 of the act (21 U.S.C. 342), and the failure of any person to come forward with proof of such an applicable prior sanction in response to this proposal constitutes a waiver of the right to assert or rely on such sancation at any later time. This notice also constitutes a proposal to establish a regulation under Part 181, incorporating the same provisions, in the event that such a regulation is determined to be appropriate as a result of submission of proof of such an applicable prior sanction in response to this proposal.

Interested persons may, on or before July 26, 1977, submit to the Hearing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, Md. 20857, written comments (four copies), identified with the Hearing Clerk Docket number found in brackets in the heading of this document, regarding this proposal. Received comments may be seen in the above office between the hours of 9 a.m. and 4 p.m., Monday through Friday.

NOTE.—The Food and Drug Administration has determined that this document does not contain a major proposal requiring preparation of an inflation impact statement under Executive Order 11821 and OMB Circular A-107. A copy of the inflation impact assessment is on file with the Hearing Clerk, Food and Drug Administration.

NOTE.—Incorporation by reference approved by the Director of the Office of the Federal Register on July 10, 1973, and it is on file in the Federal Register library.

Dated: May 12, 1977.

JOSEPH P. HILE,
Associate Commissioner for Compliance.

[FR Doc.77-15028 Filed 5-26-77;8:45 am]

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[25 CFR Part 258]

PREFERENCE IN EMPLOYMENT

Issuance of New Part

MAY 20, 1977.

AGENCY: Bureau of Indian Affairs.

ACTION: Proposed rule.

SUMMARY: The Bureau proposes to add a new part to its regulations. The purpose of this addition is to establish a definition of the term "Indian" for eligibility for a preference in employment in the Bureau of Indian Affairs. Because there could be two standards in defining the term, discretion is being exercised with respect to the Indian Reorganization Act to establish a uniform standard.

DATE: Comments must be received on or before: July 15, 1977.

ADDRESS: Written comments should be directed to: Acting Commissioner, Bureau of Indian Affairs, Attention: Division of Personnel Management, 1951 Constitution Avenue NW., Washington, D.C. 20245.

FOR FURTHER INFORMATION CONTACT:

Mr. Louis Bayhylle, Division of Personnel Management, telephone 202-343-5547.

SUPPLEMENTARY INFORMATION: This proposal represents a change from the previous eligibility standard for a Schedule A excepted appointment, 5 CFR 213.3112(a)(7). Where necessary a preference in employment is extended by conferring a Schedule A excepted appointment on the Indian. Previously, the authority applied only to an Indian of one-quarter degree Indian ancestry of a Federally recognized tribe. On September 24, 1976, the Civil Service Commission, at the request of the Secretary of the Interior, modified the excepted appointment authority by deleting the quarter-degree standard and imposing on the Secretary the responsibility of defining the term "Indian."

This change is necessitated by an opinion of the Associate Solicitor for Indian Affairs dated April 9, 1975, which concluded that the definition of "Indian" in the Indian Reorganization Act had to be applied to the preference provision of that same act in appointments to vacant positions in the Bureau of Indian Affairs. The preference conferred in 25 U.S.C. 472 must be applied in the filing of every vacant position in the Bureau of Indian Affairs. *Freeman* v. *Morton*, 499 F. 2d 492 (D.C. Cir. 1974). Since there is no Civil Service regulation of appointment actions beyond initial hiring, i.e., promotions, transfers and reassignments, on April 20, 1976, the Commissioner of Indian Affairs extended the statutorily defined standards in 25 U.S.C. 479 to the filing of vacant positions by way of pro-

motion, transfer and reassignment. Because of the Civil Service Commission standards for initial appointments where Schedule A excepted appointments are conferred, no action was taken to modify the quarter-degree standard. However, on March 18, 1976, the Secretary of the Interior had requested the Civil Service Commission to modify the Schedule A authority to adopt the statutory standards of 25 U.S.C. 479 plus an additional standard for tribes whose rolls have been closed by act of Congress and who have not as yet organized. Rather than accepted the Secretary's proposed standards, the Commission in the notice published on September 24, 1976, conferred on the Secretary the authority to define an Indian for Schedule A excepted appointments.

The proposed definition below varies from the statutorily set standards in two respects. Section 258.1(c) adds the requirement that persons of one-half or more Indian ancestry must be of tribes indigenous to the United States. This addition is merely to make clear that, apart from Federal recognition, aboriginal persons of tribes which were never a part of the United States are not eligible for preference. The second variance is the addition of a fifth criterion, as mentioned above. Ostensively, this criterion would apply to three of the Five Civilized Tribes of Oklahoma (Choctaw, Creek, and Chickasaw Tribes) and the Osage Tribe whose rolls were closed by acts of Congress and who have not as yet reorganized so as to establish current membership standards. Many such persons have received preference based on the quarter-degree standard. In order that they are not now deprived of that eligibility and made to meet the half-degree standard, it is proposed that the quarter-degree standard remain applicable for three years from the final date of publication so that they may formally organize and establish membership standards.

The second criterion—descendancy of members who were residing on reservations on June 1, 1934—posed an ambiguity which was resolved in an opinion of the Associate Solicitor for Indian Affairs on March 24, 1976. A person qualifying under this criterion must have been born on or before June 1, 1934, and must be descended from a member who resided on any Indian reservation.

Persons who are employed by the Bureau of Indian Affairs on the date these regulations become effective and who received preference in any previous appointment will continue to be preference eligibles so long as they are continuously employed.

The authority for the Commissioner to issue these regulations is contained in Section 9 of the Act of June 30, 1834 (4 Stat. 737, 25 U.S.C. 43), Section 6 of the Act of May 17, 1882 (22 Stat. 88, 25 U.S.C. 46), Section 10 of the Act of August 15, 1894 (28 Stat. 313, 25 U.S.C. 44), Section 5 of the Act of February 8, 1887 (24 Stat. 389, 25 U.S.C. 348), and Sections 12 and 19 of the Act of June 18, 1934 (48 Stat. 986, 25 U.S.C. 472 and 479), and 230 DM 1 and 2.

It is proposed to add a new Part 258 to Subchapter W, Miscellaneous Activities, Chapter I of Title 25 of the Code of Federal Regulations to read as follows:

PART 258—PREFERENCE IN EMPLOYMENT

Sec.
258.1 Definitions.
258.2 Appointment actions.
258.3 Application procedure for preference eligibility.

AUTHORITY: 4 Stat. 737, 25 U.S.C. 43; 22 Stat. 88, 25 U.S.C. 46; 28 Stat. 313, 25 U.S.C. 44; 24 Stat. 389, 25 U.S.C. 348; and 48 Stat. 986, 25 U.S.C. 472 and 479.

§ 258.1 Definitions.

For purposes of making appointments to vacancies in all positions in the Bureau of Indian Affairs a preference will be extended to persons of Indian descent who are:

(a) Members of any recognized Indian tribe now under Federal jurisdiction;

(b) Descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation;

(c) All others of one-half or more Indian blood of tribes indigenous to the United States;

(d) Eskimos and other aboriginal people of Alaska; and

(e) Until _____ ____, 198__ (three years from effective date of final publication) a descendant of at least one-quarter degree Indian ancestry of a currently Federally-recognized tribe whose rolls have been closed by an act of Congress.

§ 258.2 Appointment actions.

(a) Preference will be afforded a person meeting any one of the standards of § 258.1 whether the appointment involves initial hiring, reinstatement, transfer, reassignment or promotion.

(b) Preference eligibles may be given a Schedule A excepted appointment under 5 CFR 213.3112(a)(7). However, if the individuals are within reach on a Civil Service Register, they may be given a competitive appointment.

§ 258.3 Application procedure for preference eligibility.

(a) Proof of eligibility must be submitted with the person's application for a position.

(b) In order for a person to be considered a preference eligible according to the standards of § 258.1, they must submit proof of membership, descendancy or degree of Indian ancestry as indicated on rolls or records acceptable to the Secretary.

RAYMOND V. BUTLER,
Deputy Acting Commissioner of Indian Affairs.

[FR Doc.77-15404 Filed 5-27-77;8:45 am]

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[26 CFR Part 1]

INCOME TAX

Arbitrage Bonds

MAY 20, 1977.

AGENCY: Internal Revenue Service, Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: This document contains proposed regulations relating to arbitrage bonds. The regulations are intended to control certain practices that have been used to defeat the purposes of the arbitrage regulations. They affect purchasers and governmental issuers of tax-exempt bonds.

DATES: Written comments and requests for a public hearing must be delivered or mailed by July 15, 1977. The proposed regulations apply to bonds sold after May 25, 1977.

ADDRESS: Send comments and requests for a public hearing to: Commissioner of Internal Revenue, Attention: CC:LR:T, Washington, D.C. 20224.

FOR FURTHER INFORMATION CONTACT:

Benjamin J. Cohen of the Legislation and Regulations Division, Office of the Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, NW., Washington, D.C. 20224 (Attention: CC:LR:T) (202-566-3458).

SUPPLEMENTARY INFORMATION:

BACKGROUND

This document contains proposed amendments to the Income Tax Regulations (26 CFR Part 1) under section 103(c) of the Internal Revenue Code of 1954. These amendments are to be issued under the authority contained in sections 103(c)(6) and 7805 of the Internal Revenue Code of 1954 (83 Stat. 656 and 68A Stat. 917; 26 U.S.C. 103, 7805).

PREVIOUS NOTICES OF PROPOSED RULEMAKING

On May 3, 1973, the FEDERAL REGISTER published proposed Income Tax Regulations (26 CFR Part 1) under section 103 of the Internal Revenue Code of 1954 (38 FR 10944). The proposed regulations were revised by notices of proposed rulemaking published in the FEDERAL REGISTER for December 3, 1975 (40 FR 56488) and October 29, 1976 (41 FR 47679) and corrected by notices published in the FEDERAL REGISTER for May 11, 1973 (38 FR 12405), December 18, 1975 (40 FR 58656), and November 24, 1976 (41 FR 51840). This notice of proposed rulemaking further revises the proposed regulations.

GROSS REFUNDINGS

In 1969, Congress enacted section 103(c) of the Internal Revenue Code. Sec-

tion 103(c) recognizes that under many circumstances advance refundings can be a legitimate tool of municipal finance. At the same time, however, Congress sought to prevent advance refunding that produce arbitrage and conferred upon the Treasury broad authority to promulgate regulations carrying out the purpose of this provision.

Section 103(c) and regulations thereunder have been successful in preventing issuers from realizing arbitrage on most advance refunding issues. Recently, however, the Treasury has learned that issuers are still able to realize arbitrage from certain advance refundings—namely, gross refundings (sometimes called full cash defeasance refundings or AB refundings). These new regulations are designed to elminate the arbitrage advantage in gross refundings.

The basic change in the regulations is the amendment to § 1.103–13(c)(1)(ii). This change requires the issuer to determine the yield on each refunding issue separately. Thus, the issuer can no longer determine a combined yield on two or more issues. The combined yield formerly required by § 1.103–13(c)(1)(ii) has been responsible for the arbitrage advantage in gross refundings. In addition, § 1.103–13(a) is amended to ensure that the issuer cannot secure the advantages of a combined yield by artificially pricing its obligations. § 1.103–13(f) is amended to ensure that the issuer cannot secure the advantages of a combined yield by artificially allocating principal and interest on acquired obligations, and a new § 1.103–15 is added principally to ensure that the issuer cannot secure the advantages of a combined yield by combining what are usually two issues into one. Other changes, some clerical and some technical, are also made.

Comments and Requests for a Public Hearing

Before adopting these proposed regulations, consideration will be given to any written comments that are submitted (preferably six copies) to the Commissioner of Internal Revenue. All comments will be available for public inspection and copying. A public hearing will be held upon written request to the Commissioner by any person who has submitted written comments. If a public hearing is held, notice of the time and place will be published in the Federal Register.

Drafting Information

The principal author of these proposed regulations was Benjamin J. Cohen of the Legislation and Regulations Division of the Office of Chief Counsel, Internal Revenue Service. However, personnel from other offices of the Internal Revenue Service and Treasury Department participated in developing the regulations, both on matters of substance and style.

Proposed Amendments to the Regulations

The proposed amendments to 26 CFR Part 1 are as follows:

Paragraph 1. Section 1.103–13 is amended as follows:

1. Paragraph (a) is amended by striking out the period at the end of the fourth sentence of subparagraph (2)(ii) and inserting in lieu thereof "(see subparagraph (3) of this paragraph).", by redesignating subparagraph (3) as subparagraph (4), by adding a new subparagraph (3), and by adding a new sentence at the end of subparagraph (4).

2. Paragraph (b) is amended by striking out "this section and § 1.103–14" in the first sentence and inserting in lieu thereof "this section, § 1.103–14, and § 1.103–15", by deleting the fifth sentence of subparagraph (1)(ii), by striking out "and the application of the major portion test" in the first sentence of subparagraph (9)(i) and inserting in lieu thereof "the application of the major portion test, and the application of § 1.103–15 (relating to excess proceeds)", and by adding a new subparagraph (10).

3. Paragraph (c) is amended by revising the fourth sentence and deleting the sixth and seventh sentences of subparagraph (1)(ii), redesignating subparagraph (3) as subparagraph (4), and adding a new subparagraph (3).

4. Paragraph (f) is amended by revising the fourth sentence of subparagraph (1), deleting the fifth and sixth sentences of subparagraph (1), redesignating subparagraph (4) as subparagraph (5), adding a new subparagraph (4), revising the first sentence of subparagraph (5), and adding new examples (4) and (5) to subparagraph (5). These new and revised provisions read as follows:

(a) *Scope.* * * *

(3) *Reasonable purchase price.* (i) In determining whether the purchase price of a refunding issue is reasonable for purposes of subparagraph (2)(ii) of this paragraph, each refunding issue must be judged separately and individually.

(ii) The application of this subparagraph may be illustrated by the following example:

Example. On May 13, 1977, city A sells $10.4 million principal amount of 7-percent revenue bonds and $5 million principal amount of 4-percent special obligations bonds to underwriter X. Underwriter X pays $10.6 million for the revenue bonds and $4.8 million for the special obligation bonds. Assume that $15.4 million is a reasonable price for both issues together, but also assume that the special obligation bonds could be sold separately to another underwriter for at least $4.85 million and that the revenue bonds could not be sold separately to any other underwriter for more than $10.5 million. Since each refunding issue must be judged separately and individually, neither the purchase price of the revenue bonds nor the purchase price of the special obligation bonds can be considered reasonable.

(4) *Effective date.* * * * The amendments made by the notice of proposed rulemaking published in the Federal Register for May 31, 1977 (page 27610) apply to issues sold after May 25, 1977.

* * * * *

(b) *Definitions.* * * *

(10) *Issue.* (i) Two or more obligations are part of the same "issue" if the obligations—

(A) Are issued at substantially the same time,

(B) Are sold pursuant to a common plan of financing, and

(C) Will be paid out of substantially the same source of funds.

All other facts (such as whether the obligations are offered by the same official statement or are sold under the same indenture) are irrelevant for purposes of this subparagraph.

(ii) The following examples illustrate the application of this subparagraph:

Example (1). On January 1, 1980, city T issues $10,000,000 of series A revenue bonds and on January 7, 1980, city T issues $5,000,000 of series B revenue bonds. The series A and series B bonds are sold pursuant to a common plan of financing and both will be paid solely out of revenues of the city T water works. Based on these facts, the series A and series B bonds are all part of one issue.

Example (2). The facts are the same as in example (1), except that the series B bonds are special obligation bonds and will be paid out of interest on Treasury obligations. Because the series A and series B bonds will not be paid from the same source of funds, they are treated as separate issues

* * * * *

(c) *Computation of yield.*—(1) *In general.* * * *

(ii) * * * In the case of governmental obligations, the computation must be made separately for each issue of obligations issued by a governmental units, except that a single computation may be made for two or more issues if, before the issuance of the last issue, the issuer establishes to the satisfaction of the Commissioner that the single computation will not distort yield or otherwise tend to defeat the purposes of section 103(c). * * *

* * * * *

(3) *Allocation of certain administrative costs.* (i) If two or more refunding issues are used to refund the same prior issue, then any fees paid to a lawyer, accountant, fiscal agent, or financial consultant in connection with the refunding issues must be allocated among the refunding issues in proportion to their principal amounts. The following examples illustrate the application of this subdivision:

Example (1). On January 1, 1980, State X issues $10 million of series A revenue bonds and $5 million of series B special obligation bonds in the full cash defeasance of a prior issue. On the same day, State X pays lawyer R $12,000 for legal services rendered in connection with issuing the refunding bonds and $9,000 for legal services rendered in connection with investing the proceeds of the refunding bonds. Of the $12,000 fee for services rendered in connection with issuing the refunding bonds, State X must treat $8,000 (*i.e.*, $12,000 × $\frac{\$10 \text{ million}}{\$5 \text{ million} + \$10 \text{ million}}$) as a cost of issuing the series A bonds and the remaining $4,000 as a cost of issuing the series B bonds. Similarly, of the $9,000 fee for services rendered in connection with investing the proceeds of the refunding bonds, State X must treat $6,000 as a cost of investing the proceeds of the series A bonds

and $3,000 as a cost of investing the proceeds of the series B bonds.

Example (2). The facts are the same as in example (1). In addition, on November 1, 1984, State X will pay accountant K $1,500 for accounting services to be rendered in connection with carrying the refunding bonds. State X must treat $1,000 as a cost of carrying the series A bonds and the remaining $500 as a cost of carrying the series B bonds. This is the result even though some (or all) of the series B bonds will be retired before November 1, 1984.

(ii) [Reserved]

* * * * *

(f) *Allocations of investments and expenditures.*—(1) *In general.* * * * Allocations under this paragraph may be made at any time and under any reasonable method chosen by the State or local governmental unit, provided that the method of allocation satisfies the requirements in subparagraph (4) of this paragraph.

* * * * *

(4) *Requirements.* (i) All allocations made under this paragraph must be consistent with one another. Thus, for example, an acquired obligation cannot be allocated to more than one issue of governmental obligations at the same time.

(ii) Obligations purchased with the proceeds of a refunding issue must be allocated to the refunding issue.

(iii) Obligations not purchased with proceeds of a refunding issue may not be allocated to the refunding issue.

(iv) If any obligation is allocated to two or more sources of funds, each receipt of principal or interest on the obligation must be allocated ratably among the several sources of funds. (See examples (4) and (5) of subparagraph (5) of this paragraph.)

(5) *Examples.* The following examples illustrate the application of this paragraph:

* * * * *

Example (4). On February 1, 1980, county T issues series A revenue bonds and series B special obligation bonds in the full cash defeasance of a prior issue. $40,000 of proceeds of the Series A issue and $60,000 of proceeds of the Series B issue are used together to purchase an acquired obligation. County T allocates interest with a present value of $60,000 to the Series B issue and the remaining interest and principal to the Series A issue. This Allocation is Improper. Instead, county T must allocate 40 percent of each payment of principal or interest on the acquired obligation to the Series A issue and 60 percent of each such payment to the Series B issue; no other allocation is permitted.

Example (5). On February 1, 1980, city A issues $10 million of revenue bonds for the purpose of constructing a water treatment facility. On the same day, city A purchases an acquired obligation for $1 million. $200,000 of the acquired obligation is allocated to proceeds of the revenue bonds that are held in a reserve fund and invested at an unrestricted yield (see § 1.103–14(d)). $700,000 of the acquired obligation is allocated to proceeds of the revenue bonds that are invested at a restricted yield, and the remaining $10,000 is allocated to other funds (which are not proceeds of the revenue bonds). Of each payment of principal and interest on the acquired obligation, city A must allocate 20 percent to the bond proceeds that are invested at an unrestricted yield, 70 percent to the bond proceeds that are invested at a restricted yield, and 10 percent to the other funds.

PAR. 2. Section 1.103–14(e) is amended by revising subparagraphs (1) and (5)(ii)(C) and by adding new subparagraphs (1–A) and (1–B) to read as follows:

§ 1.103–14 Temporary investments, reserve fund and refunding issues.

* * * * *

(e) *Refunding issue*—(1) *In general.* This paragraph applies to refunding issues. The general rules regarding the temporary period (see paragraph (b) of this section), the reasonably required reserve or replacement fund (see paragraph (d) of this section), and the major portion test (see § 1.103–13(b)(1)) do not apply to a refunding issue except as provided in this paragraph. This paragraph does not apply to proceeds of a prior issue until they become "transferred proceeds" under the rules in subparagraph (2) of this paragraph.

(1–A) *Operating rules; temporary period.* (i) The rules in this subparagraph apply solely for purposes of subparagraph (3) of this paragraph (relating to the temporary period).

(ii) If two or more refunding issues are used to refund the same prior issue, and if the refunding is in substance a single transaction, then the refunding issues are treated as a single issue.

(iii) If a refunding issue is used to refund a portion (but not all) of the prior issue, then the refunded and nonrefunded portions of the prior issue are treated as separate issues.

(iv) The following examples illustrate the application of this subparagraph:

Example (1). City A has outstanding $10 million of noncallable 9-percent revenue bonds (the "prior issue") due on January 1, 1990. On January 1, 1980, city A issues $6 million of series A 6½-percent general obligation bonds and $4 million of series B 7-percent revenue bonds at par in a crossover refunding of the prior issue. For purposes of the temporary period rules in subparagraph (3), the two refunding issues are treated as a single issue.

Example (2). City B has outstanding $8 million of noncallable 9-percent revenue bonds (the "prior issue") due on January 1, 1990. On January 1, 1980, city A issues $3 million of 6½-percent refunding bonds at par in a crossover refunding of a portion of the prior issue. The remaining $5 million of the prior issue will be paid from revenues. Based on these facts, the prior issue is treated as two separate issues—one of $3 million and one of $5 million—for purposes of the temporary period rules in subparagraph (3).

Example (3). City C has outstanding—$12 million of noncallable 9-percent revenue bonds (the "prior issue") due according to the following schedule:

	Dollars in millions
Jan. 1, 1981	2
Jan. 1, 1982	4
Jan. 1, 1983	6

On January 1, 1980, city C issues $2 million of series B 6½ percent general obligation bonds and $6 million of series A 7-percent special obligation bonds at par in a crossover refunding of two portions of the prior issue. The proceeds of the series B bonds will be used to pay the $2 million due on January 1, 1981, and the proceeds of the series A bonds will be used to pay the $6 million due on January 1, 1983. The $4 million due on January 1, 1982 will be paid from revenues. For purposes of the temporary period rules in subparagraph (3), the series A and series B issues are treated as a single issue. In addition, the $8 million refunded portion and the $4 million nonrefunded portion of the prior issue are treated as separate issues.

(1–B) *Operating rules; transferred proceeds, minor portion, and 4–R fund.* (i) The rules in this subparagraph apply solely for purposes of subparagraphs (2), (4), (5), and (6) of this paragraph. Subparagraphs (2), (4), (5), and (6) relate, respectively, to transferred proceeds, the major portion test, the reasonably required reserve or replacement fund, and the adjusted maturity date.

(ii) If the proceeds of a refunding issue are used to refund two or more prior issues, then the portion of the proceeds used to refund each prior issue is treated as a separate refunding issue.

(iii) If a refunding issue is used to refund a portion (but not all) of a prior issue, then:

(A) The refunded and nonrefunded portions of the prior issue are treated as separate issues,

(B) Unspent proceeds of the prior issue must be allocated ratably between the separate issues, and

(C) If any unspent proceeds of the prior issue are invested at an unrestricted yield pursuant to paragraph (d) of this section or § 1.103–13(b)(1)(ii), those proceeds must be allocated ratably between the separate issues.

(iv) Notwithstanding subdivision (iii) of this subparagraph, if a Series B issue is used together with one or more Series A issues in a gross refunding of a prior issue, and if the requirements in § 1.103–15(d)(2) (i), (ii), (iii), and (iv) are satisfied, then:

(A) Each portion of the prior issue that is refunded by one of the Series A issues is treated as a separate issue,

(B) All unspent proceeds of the prior issue must be allocated ratably among the separate issues,

(C) If any unspent proceeds of the prior issue are invested at an unrestricted yield pursuant to paragraph (d) of this section or § 1.103–13(b)(1)(ii), those proceeds must be allocated ratably among the separate issues, and

(D) None of the unspent proceeds of the prior issue may be allocated to any portion of the prior issue that is refunded by the Series B issue.

For purposes of this subparagraph, the terms "Series B issue" and "Series A issues" have the same meaning as in § 1.103–15(d).

(v) The following examples illustrate the application of this subparagraph:

Example (1). City E has outstanding $10 million of noncallable 9-percent revenue bonds and $5 million of noncallable 8-percent revenue bonds due on January 1, 1990. On January 1, 1983, city E issues $15 million of 6-percent general obligation bonds at par

in a crossover refunding of both issues of revenue bonds. Under this subparagraph, the refunding issue is treated as two separate issues—one of $10 million and one of $5 million.

Example (2). The facts are the same as in example (1) of subparagraph (1–A) (iv) of this paragraph. Under this subparagraph, the prior issue is treated as two separate issues—one $6 million issue ("issue p–1") that is refunded by the series A bonds and one $4 million issue ("issue p–2") that is refunded by the series B bonds. Assuming that $1 million of the proceeds of the prior issue remain unspent on January 1, 1980, $600,000 of these unspent proceeds must be allocated to issue p–1 and the remaining $400,000 must be allocated to issue p–2. Assuming further that $500,000 of the unspent proceeds of the prior issue are invested at an unrestricted yield in a replacement fund, $300,000 of these proceeds must be allocated to issue p–1 and the remaining $200,000 must be allocated to issue p–2.

Example (3). The facts are the same as in example (2) of this subdivision, except that the prior issue will be retired serially. The result is the same excpt that issues p–1 and p–2 may be further subdivided under subparagraph (6) of this paragraph (relating to adjusted maturity date).

Example (4). The facts are the same as in example (2) of subparagraph (1–A) (iv) of this paragraph. Under this subparagraph, the prior issue is treated as two separate issues—one $3 million issue that is refunded and one $5 million issue that is not refunded.

Example (5). The facts are the same as in example (3) of subparagraph (1–A) (iv) of this paragraph. Under this subparagraph, the prior issue is treated as three separate issues—one $2 million issue that is refunded by the series A bonds, one $4 million issue that is not refunded, and one $6 million issue that is refunded by the series B bonds.

Example (6). The facts are the same as in example (4) of § 1.103–15(j). As a result of this subparagraph, all unspent proceeds of the prior issue would become transferred proceeds of the Series A issue, and none would become transferred proceeds of the Series B issue. The result would be the same even if some of the proceeds of the Series B issue were used to pay principal on the prior issue.

* * * * *

(5) *Reasonably required reserve or replacement fund.* * * *

(ii) * * *

(C) If a refunding issue is a Series B issue (within the meaning of § 1.103–15 (d)), and if the requirements in § 1.103–(d)(2) are satisfied, then the proceeds of the refunding issue may not be invested at a materially higher yield pursuant to paragraph (d) of this section.

* * * * *

PAR. 3. A new § 1.103–15 is added to read as follows:

§ 1.103–15 Excess proceeds.

(a) *Effective date.* This section applies to refunding issues sold after May 25, 1977.

(b) *General rule.* If the excess proceeds (as defined in paragraph (c) of this section) of a refunding issue exceed 1 percent of the original proceeds, then (except as provided in paragraphs (d), (e), and (f) of this section) the refunding obligations are arbitrage bonds.

(c) *Excess proceeds.*—(1) *In general.* For purposes of this section, the "excess proceeds" or a refunding issue are all proceeds (including investment proceeds) other than:

(i) Proceeds that will be used to pay principal, interest, or call premium on the prior issue;

(ii) Proceeds that will be used to pay not more than 6 months' accrued interest on the refunding issue;

(iii) Proceeds that will be used to pay capitalized interest (as defined in subparagraph (2) of this paragraph) on the refunding issue;

(iv) Proceeds that will be used as part of a reasonably required reserve or replacement fund for the refunding issue;

(v) Proceeds that will be used to pay the administrative costs of:

(A) Repaying the prior issue,

(B) Carrying and repaying the refunding issue, or

(C) Purchasing, carrying, and selling or redeeming obligations acquired with the proceeds of the refunding issue, and

(vi) Transferred proceeds that will be used for the purpose of the prior issue.

(2) *Capitalized interest.* For purposes of subparagraph (1) of this paragraph, "capitalized interest" means interest on a refunding issue that accrues within—

(i) The period of time necessary to complete the construction or acquisition of the project for which the prior issue was issued, plus

(ii) (A) One year, or

(B) A period not longer than 5 years if, prior to the issuance of the refunding issue, the issuer demonstrates to the satisfaction of the Commissioner that, because of inadequate revenues during the commencement of operations of the project, interest which accrues during that period should be treated as capitalized interest.

(d) *First exception: gross refunding.*—(1) *In general.* If a refunding issue (hereinafter called the "Series B issue") is used together with one or more other refunding issues (hereinafter called the "Series A issues") in a gross refunding of a prior issue, and if all five of the requirements set out in subparagraph (2) of this paragraph are satisfied, then this section shall not apply to the Series B issue or the Series A issues.

(2) *Requirements.* The requirements referred to in subparagraph (1) of this paragraph are as follows:

(i) Substantially all of the excess proceeds of the Series B issue and substantially all of the excess proceeds of each Series A issue will be used to pay principal and interest on the Series B issue. (For the meaning of "substantially all", see paragraph (e)(2) of this section.)

(ii) Substantially all of the excess proceeds of the Series B issue and substantially all of the excess proceeds of each Series A issue will be investment proceeds.

(iii) At least 99 percent of all principal and interest on the Series B issue will be paid with proceeds of the Series B and Series A issues, or with the earnings on other amounts put into escrow to discharge the prior issue.

(iv) The Series B issue will not be discharged later than the prior issue.

(v) At no time will the proceeds of the Series B issue which have been spent exceed the sum of the payments made on or before that time of—

(A) Principal and interest on the Series B issue, and

(B) Administrative costs of the Series B issue described in paragraph (c)(1)(v) (B) and (C) of this section.

(e) *Second exception: Crossover refunding.*—(1) *In general.* This section shall not apply to a refunding issue if both of the following requirements are satisfied:

(i) Substantially all of the excess proceeds of the refunding issue will be used to pay interest that accrues on the refunding issue before the prior issue is discharged.

(ii) No proceeds of any refunding issue will be used to pay interest on the prior issue or to replace funds that are used directly or indirectly to pay such interest.

(2) *Substantially all.* For purposes of paragraphs (d)(2) and (e)(1) of this section, "substantially all" of the excess proceeds of a refunding issue means all of the excess proceeds except for an amount not larger than 1 percent of the original proceeds.

(f) *Third exception: Prior ruling.*—(1) *In general.* This section shall not apply to a refunding issue if, prior to the issuance of the refunding issue, the issuer demonstrates to the satisfaction of the Commissioner that it will not realize any material debt service or other savings directly or indirectly from the receipt of excess proceeds amounting to more than 1 percent of the original proceeds of the issue.

(2) *Material.* For purposes of this paragraph—

(i) A debt service or other savings is material if it has a present value of more than $100 on the day the refunding issue is sold;

(ii) In determining the present value of any debt service or other savings, the yield on the refunding issue (as determined under § 1.103–13(c)(2)(ii)) shall be used as the discount rate.

(g) *Special rule.* If the original proceeds of a refunding issue are less than $500,000, then "$5,000" shall be substituted for "1 percent of the original proceeds" in paragraphs (b) and (e)(2) of this section and for "1 percent of the original proceeds of the issue" in paragraph (f)(1) of this section.

(h) *Meaning of terms.* The terms used in this section have the same meaning as in §§ 1.103–13 and 1.103–14.

(i) [Reserved]

(j) *Illustrations.* For purposes of this paragraph, it is assumed that city A has outstanding $10 million of noncallable 9-percent revenue bonds (the "prior issue") due on January 1, 1990. Principal and interest on the prior issue are payable solely from revenues of the city A water works. In order to modify restrictions in the bond indenture, city A contemplates refunding the prior issue on January 1, 1983. To that end, city A takes under consideration four different advance refunding programs:

Example (1). The first refunding program contemplates a standard defeasance of the prior issue. In this first program, city A would issue $11,500,000 of 7-percent refunding bonds at par on January 1, 1983. The refunding bonds would mature on January 1, 1990 and would be paid solely from revenues of the city A water works. The original proceeds of the refunding bonds would be $11,435,000 (*i.e.*, $11,500,000 less issuing expenses of $65,000) and the investment proceeds (derived from investment in 6.5-percent Treasury obligations) would be $4,916,820. Of the total $16,351,820 of proceeds, $10,000,000 would be used to pay principal on the prior issue, $6,300,000 would be used to pay interest on the prior issue, $35,000 would be used to pay administrative costs of purchasing, carrying, and redeeming acquired obligations, $10,000 would be used to pay administrative costs of carrying and repaying the refunding bonds, and the remaining $6,820 would be used to pay principal on the refunding bonds. Based on these assumptions, the excess proceeds of the refunding issue (*i.e.*, $6,820) would be less than 1 percent of the original proceeds (*i.e.*, .01×$11,435,000=$114,350). Therefore, the refunding bonds would not be treated as arbitrage bonds under this section. (See paragraph (b) of this section.)

Example (2). The second refunding program contemplates a full cash defeasance of the prior issue. In this second program, city A would issue $11,135,000 of Series A revenue bonds and $5,320,000 of Series B special obligation bonds at par on January 1, 1983. The Series A bonds would bear a 7-percent coupon, would mature on January 1, 1990, and would be paid solely from revenues of the city A water works. The Series B bonds would bear a 4-percent coupon, would be paid solely out of earnnigs on amounts put into escrow to defease the prior issue, and would mature according to the following schedule:

July 1, 1983	$410,000
Jan. 1, 1984	430,000
July 1, 1984	410,000
Jan. 1, 1985	405,000
July 1, 1985	395,000
Jan. 1, 1986	395,000
July 1, 1986	385,000
Jan. 1, 1987	375,000
July 1, 1987	370,000
Jan. 1, 1988	365,000
July 1, 1988	355,000
Jan. 1, 1989	350,000
July 1, 1989	340,000
Jan. 1, 1990	335,000

The yield on the Series B bonds (computed separately) would be approximately 4¼ percent (see § 1.103-13(c)). The proceeds of both the Series A and Series B issues would be invested in United States Treasury obligations paying 6.5 percent. Even though the combined yield on the Series A and Series B issues would be somewhat greater than 6.5 percent, the Series B bonds would be arbitrage bonds.

Example (3). The third refunding program also contemplates a full cash defeasance of the prior issue. In this third refunding program, city A would issue $16,455,000 of 6⅜-percent refunding bonds at par on January 1, 1983. The 6⅜-percent refunding bonds would be an amalgamation of the Series A and B refunding bonds described in example (2) of this paragraph. The 6⅜-percent refunding bonds would be paid partly from revenues of the city A water works and partly from earnings on amounts put into escrow to defease the prior issue. They would mature according to the following schedule:

July 1, 1983	$410,000
Jan. 1, 1984	430,000
July 1, 1984	410,000
Jan. 1, 1985	405,000
July 1, 1985	395,000
Jan. 1, 1986	395,000
July 1, 1986	385,000
Jan. 1, 1987	375,000
July 1, 1987	370,000
Jan. 1, 1988	365,000
July 1, 1988	355,000
Jan. 1, 1989	350,000
July 1, 1989	340,000
Jan. 1, 1990	11,470,000

The original proceeds of the 6⅜-percent refunding issue would be $16,355,000 (*i.e.*, $16,455,000 less issuing expenses of $100,000) and the investment proceeds (derived from investment in 6.5 percent Treasury obligations) would be $5,085,625. Of the total $22,440,625 of proceeds, $10,000,000 would be used to pay principal on the prior issue, $6,300,000 would be used to pay interest on the prior issue, $50,000 would be used to pay administrative costs of purchasing, carrying, and redeeming acquired obligations, $767,100 would be used to pay interest on the refunding bonds, and the remaining $5,323,525 would be used to pay principal on the refunding bonds. Based on these assumptions, the excess proceeds of the 6⅜-percent refunding issue would be $6,090,625 (*i.e.*, $767,100+$5,323,525), which is $5,927,075 more than the amount permitted under paragraph (b) of this section (*i.e.*, 1 percent of the original proceeds=.01×$16,355,000=$163,550). City A would realize a debt service savings of approximately $115,000 by using the 6⅜-percent refunding bonds to refund the prior issue instead of using the 7-percent refunding bonds described in example (1) of this paragraph. Moreover, at least $101 of the $115,000 savings would result from city A's receipt of $5,927,075 of impermissible excess proceeds. Therefore, the 6⅜-percent refunding bonds would not come within the exception in paragraph (f) of this section. Because the 6⅜-percent refunding bonds would also fail to come within the exceptions in paragraphs (d) and (e) of this section, they would be arbitrage bonds.

Example (4). (a) The fourth refunding program also contemplates a full cash defeasance of the prior issue. In this fourth refunding program, city A would issue $11,500,000 of Series A revenue bonds and $4,950,000 of Series B special obligation bonds at par on January 1, 1983. The Series A bonds would bear a 7-percent coupon, would mature on January 1, 1990, and would be paid solely from revenues of the city A water works. The Series B bonds would bear a 4-percent coupon, would be paid solely out of earnings on amounts put into escrow to discharge the prior issue, and would mature as shown in column C of Table II (see item (b) of this example).

(b) Table I shows receipts and payments of proceeds of the Series A issue. Table II shows receipts and payments of proceeds of the Series B issue. For explanatory notes, see item (c) of this example.

Table I

A	B	C	D	E	F
Date	Original Proceeds Spent	Investment Proceeds Spent	Administrative Costs	Remaining Proceeds	Cash Balance
1-1-83	$ 35,000	$ 0	$35,000	$11,400,000	$ 0
7-1-83	79,500	370,500	0	11,320,500	0
1-1-84	83,084	367,916	1,000	11,237,400	16
7-1-84	84,785	365,215	0	11,152,600	31
1-1-85	88,541	362,459	1,000	11,064,000	90
7-1-85	90,420	359,580	0	10,973,600	70
1-1-86	94,358	356,642	1,000	10,879,300	12
7-1-86	96,423	353,577	0	10,782,800	89
1-1-87	100,559	350,441	1,000	10,682,300	30
7-1-87	102,825	347,175	0	10,579,500	5
1-1-88	107,166	343,834	1,000	10,472,300	39
7-1-88	109,650	340,350	0	10,362,600	89
1-1-89	114,216	336,784	1,000	10,248,400	73
7-1-89	116,927	333,073	0	10,131,500	46
1-1-90	10,131,546	329,274	4,000	0	0

§ 1.103-15 (j) Example (4)

Table II

A	B	C	D	E	F	G	H	I
Date	Interest Paid on Series B Issue	Principal Paid on Series B Issue	Investment Proceeds Spent	Original Proceeds Spent	Administrative Costs	Remaining Proceeds	Cash Balance	Outstanding Principal Amount of Series B Issue
1-1-83	$ 0	$ 0	$ 0	$ 15,000	$15,000	$4,900,000	$ 0	$4,950,000
7-1-83	99,000	375,000	103,500	370,500	0	4,529,500	2,954	4,575,000
1-1-84	91,500	375,000	100,584	366,916	1,000	4,162,500	859	4,200,000
7-1-84	84,000	370,000	88,785	365,215	0	3,797,300	2,491	3,830,000
1-1-85	76,600	365,000	81,141	361,459	1,000	3,435,900	3,788	3,465,000
7-1-85	69,300	365,000	74,720	359,580	0	3,076,300	3,734	3,100,000
1-1-86	62,000	360,000	67,358	355,642	1,000	2,720,600	3,268	2,740,000
7-1-86	54,800	360,000	61,223	353,577	0	2,367,100	1,074	2,380,000
1-1-87	47,600	350,000	49,159	349,441	1,000	2,017,600	3,400	2,030,000
7-1-87	40,600	350,000	43,425	347,175	0	1,670,400	3,833	1,680,000
1-1-88	33,600	345,000	36,766	342,834	1,000	1,327,600	3,323	1,335,000
7-1-88	26,700	345,000	31,350	340,350	0	987,300	766	990,000
1-1-89	19,800	335,000	20,016	335,784	1,000	651,500	2,215	655,000
7-1-89	13,100	335,000	15,027	333,073	0	318,400	1,369	320,000
1-1-90	6,400	320,000	8,232	318,454	1,000	0	0	0

§ 1.103-15 (j) Example (4)

(c) The following notes explain Tables I and II in item (b) of this example:

(1) Column B of Table I shows when the original proceeds of the Series A issue would be spent. The original proceeds would be $11,435,000 (*i.e.*, $11,500,000 less issuing expenses of $65,000). Of these original proceeds, $10,000,000 would be used to pay principal on the prior issue, $1,400,000 would be used to pay interest on the prior issue, and the remaining $35,000 would be used to pay administrative costs of investing the proceeds of the Series A issue.

(2) Column C of Table I shows when the investment proceeds of the Series A issue would be spent. (All these investment proceeds would be spent at the same time they were received.) Of the $4,916,820 of investment proceeds, $10,000 would be used to pay administrative costs of carrying and repaying the Series A issue, $4,900,714 (which would be excess proceeds) would be used to pay principal and interest on the Series B issue, and the remaining $6,106 would be used to pay principal on the Series A issue. These investment proceeds would be derived from investing the original proceeds of the Series A issue in 6½ percent Treasury obligations. (It is assumed that 6½ percent is the highest rate that the Treasury will pay on January 1, 1983.)

(3) Column D of Table I shows administrative costs of carrying the Series A issue and of investing the proceeds of the Series A issue. These administrative costs would be paid with proceeds of the Series A issue.

(4) Column E of Table I shows the amount of original proceeds of the Series A issue that would be invested in Treasury obligations as of the end of the corresponding day in column A.

(5) Column F of Table I shows small amounts of original proceeds that would be kept in a checking account. These amounts would be temporary investments (see § 1.103-14(e)(3)(ix)).

(6) Column B of Table II shows the interest that would be paid on the Series B issue.

(7) Column C of Table II shows the principal that would be paid on the Series B issue.

(8) Column D of Table II shows when the investment proceeds of the Series B issue would be spent. (Not all these investment proceeds would be spent at the same time they were received. Some would be put into the checking account described in item (c)(12) of this example.) Of the $781,286 of investment proceeds, $7,000 would be used to pay administrative costs of carrying and repaying the Series B issue, and the remaining $774,286 (which would be excess proceeds) would be used to pay principal and interest on the Series B issue. These investment proceeds would be derived from investing the original proceeds of the Series B issue in 4.345-percent Treasury obligations. (However, the yield on the acquired obligations, taking into account $35,000 of administrative costs paid on January 1, 1983, would be only 4.252 percent. The yield on the Series B issue would also be 4.252 percent.)

(9) Column E of Table II shows when the original proceeds of the Series B issue would be spent. The original proceeds would be $4,915,000 (*i.e.*, $4,950,000 less issuing expenses of $35,000). All these original proceeds would be used to pay interest on the prior issue except for $15,000 that would be used to pay administrative costs of investing the original proceeds of the Series B issue.

(10) Column F of Table II shows administrative costs of carrying and repaying the Series B issue and investing the proceeds of the Series B issue. These administrative costs would be paid with investment proceeds of the Series B issue.

(11) Column G of Table II shows the amount of original proceeds of the Series B issue that would be invested in Treasury obligations as of the end of the corresponding day in column A.

(12) Column H of Table II shows small amounts of original and investment proceeds of the Series B issue that would be kept in a checking account. These amounts would be temporary investments (see § 1.103-14(e)(3)(ix)).

(d) Based on items (a), (b), and (c) of this example, the following conclusions may be drawn:

(1) All of the excess proceeds of the Series B issue and substantially all (*i.e.*, all but $6,106) of the excess proceeds of the Series A issue would be used to pay principal and interest on the Series B issue.

(2) All of the excess proceeds of the Series B and Series A issues would be investment proceeds.

(3) All of the principal and interest on the Series B issue would be paid with proceeds of the Series B and Series A issues.

(4) The Series B issue would be discharged on January 1, 1980, the same day as the prior issue.

(5) The proceeds of the Series B issue would not be spent faster than principal and interest on the Series B issue and administrative costs of the Series B issue would be paid. For example, on January 1, 1984, $956,500 of proceeds of the Series B would have been spent (*i.e.*, $752,416 of original proceeds plus $204,084 of investment proceeds), which is the same as the $956,500 of principal, interest, and administrative costs of the Series B issue that would be paid on or before January 1, 1984 (*i.e.*, $750,000 of principal plus $190,500 of interest plus $16,000 of administrative costs).

(e) Based on the conclusions in item (d) of this example, the Series A and Series B bonds are not treated as arbitrage bonds under this section (see paragraph (d) of this section).

JEROME KURTZ,
Commissioner of Internal Revenue.

[FR Doc.77-15415 Filed 5-26-77;9:17 am]

PENSION BENEFIT GUARANTY CORPORATION

[29 CFR Part 2608]

BENEFITS COVERED BY INSURANCE COMMITMENTS; ALLOCATION OF ASSETS

Supplemental Notice of Proposed Rulemaking; Extension of Comment Period

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Extension of comment period.

SUMMARY: The Pension Benefit Guaranty Corporation is extending until June 17, 1977 the comment period on its proposed rules pertaining to the allocation of plan assets with respect to benefits covered by insurance commitments, which appeared in the FEDERAL REGISTER on April 18, 1977, (42 FR 20156). Because persons interested in this rulemaking proceeding have requested additional time to study the important and complicated issues it raises, the comment period is being extended in order to enable those persons to have sufficient opportunity to submit comments.

DATES: Comments must be received on or before June 17, 1977.

ADDRESSES: Comments should be sent to the Office of the General Counsel, Pension Benefit Guaranty Corporation, 2020 K Street, N.W., Washington, D.C. 20006. Copies of written comments will be available for public inspection in the PBGC's Office of Communications, at the same address, between 9 a.m. and 4 p.m. Each person submitting comments should include his or her name and address, identify this notice and give reasons for any recommendations.

FOR FURTHER INFORMATION CONTACT:

Judith F. Mazo, Executive Assistant to the General Counsel, Pension Benefit Guaranty Corporation, Suite 7200, 2020 K Street, N.W., Washington, D.C. 20006, 202-254-4868.

Issued in Washington, D.C. this 25th of May, 1977.

RAY MARSHALL,
Chairman, Board of Directors, Pension Benefit Guaranty Corporation.

[FR Doc.77-15328 Filed 5-27-77;8:45 am]

[29 CFR Part 2611]

INSURANCE CONTRACTS; VALUATION OF PLAN ASSETS

Proposed Amendments; Extension of Comment Period

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Extension of comment period.

SUMMARY: The Pension Benefit Guaranty Corporation is extending until June 17, 1977 the comment period on its proposed rules pertaining to the valuation of plan assets with respect to insurance contracts, which appeared in the FEDERAL REGISTER on April 18, 1977, (42 FR 20158). Because persons interested in this rulemaking proceeding have requested additional time to study important and complicated issues it raises, the comment period is being extended in order to enable those persons to have sufficient opportunity to submit comments.

DATES: Comments must be received on or before June 17, 1977.

ADDRESSES: Comments should be sent to the Office of the General Counsel, Pension Benefit Guaranty Corporation, 2020 K Street, N.W., Washington, D.C. 20006. Copies of written comments will be available for public inspection in the PBGC's Office of Communications, at the same address, between 9 a.m. and 4 p.m. Each person submitting comments should include his or her name and address, identify this notice and give reasons for any recommendations.

FOR FURTHER INFORMATION CONTACT:

Judith F. Mazo, Executive Assistant to the General Counsel, Pension Benefit Guaranty Corporation, Suite 7200, 2020 K Street, NW., Washington, D.C. 20006, 202-254-4895.

Issued in Washington, D.C. this 25th of May, 1977.

RAY MARSHALL,
Chairman, Board of Directors, Pension Benefit Guaranty Corporation.

[FR Doc.77-15329 Filed 5-27-77;8:45 am]

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 52]

[FRL 738-3]

APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Revision to Amador County Air Pollution Control District Rules and Regulations in State of California

AGENCY: Environmental Protection Agency.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: It is the purpose of this notice to acknowledge receipt of and invite public comments on revisions to the Amador County Air Pollution Control District Rules and Regulations which were submitted to EPA by the California Air Resources Board for inclusion in the California State Implementation Plan. These revisions were received on July 25, 1973, January 22, 1974, July 19, 1974, and April 21, 1976. Since the April 21, 1976 submittal represents the most recent set of rules and regulations for this Air Pollution Control District, they will be addressed in this notice. Regulations concerning New Source Review are not being considered in this notice, and will be the topic of a separate FEDERAL REGISTER notice. The EPA solicits comments regarding the desirability of approving or disapproving the rules and regulations being considered, especially as to their consistency with the Clean Air Act.

DATES: Comments may be submitted up to June 30, 1977.

ADDRESS: Send comments to: Regional Administrator, Attention: Air and Hazardous Materials Division, Air Programs Branch, California SIP Section, EPA, Region IX, 100 California Street, San Francisco, Calif. 94111.

FOR FURTHER INFORMATION CONTACT:

Frank M. Covington, Director, Air and Hazardous Materials Division, Environmental Protection Agency, Attention: David R. Souten, San Francisco, Calif. 94111 (415-556-7288).

SUPPLEMENTARY INFORMATION: The April 21, 1976 submittal contained revisions to the following Regulations:

Regulation I—General Provisions
Regulation II—Prohibitions
Regulation III—Open Burning
Regulation IV—Permit Systems Conditions
Regulation VI—Fees
Regulation VII—Procedure Before The Hearing Board

Pursuant to section 110 of the Clean Air Act as amended, and 40 CFR Part 51, the Administrator is required to approve or disapprove the regulations as an SIP revision. The Regional Administrator hereby issues this notice setting forth these revisions as proposed rulemaking and advises the public that interested persons may participate by submitting written comments to the Region IX Office. Relevant comments received on or before June 30, 1977, will be considered. Comments received will be available for public inspection at the Region IX office and the EPA Public Information Reference Unit.

Copies of the proposed revision are available for public inspection during normal business hours at the following locations:

Amador County Air Pollution Control District, 810 Court Street, Jackson, Calif. 95642.
California Air Resources Board, 1709 11th Street, Sacramento, Calif. 95814.
Environmental Protection Agency, Region IX, 100 California Street, San Francisco, Calif. 94111.
Public Information Reference Unit, Room 2922 (EPA Library), 401 M Street SW., Washington, D.C. 20460.

(Sec. 110, Clean Air Act, as amended, (42 U.S.C. 1857c-5).)

Dated: May 3, 1977.

PAUL DE FALCO, Jr.,
Regional Administrator.

[FR Doc.77-15350 Filed 5-27-77;8:45 am]

[40 CFR Part 52]

[FRL 738-4]

APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Revisions to Lake County Air Pollution Control District's Rules and Regulations in State of California

AGENCY: Environmental Protection Agency.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: It is the purpose of this notice to acknowledge receipt of and invite public comments on revisions to the Lake County Air Pollution Control District's Rules and Regulations which were submitted to EPA by the California Air Resources Board for inclusion in the California State Implementation Plan. These revisions were submitted on February 10, 1977 as a complete revision of the District's Rules and Regulations. Regulations concerning the Emergency Episodes and New Source Review are not being considered in this notice, and will be treated in separate FEDERAL REGISTER notices. The EPA solicits comments regarding the desirability of approving or disapproving the rules and regulations being considered, especially as to their consistency with the Clean Air Act.

DATE: Comments may be submitted up to June 30, 1977.

ADDRESS: Send Comments to: Regional Administrator, ATTENTION: Air and Hazardous Materials Diviison, Air Programs Branch, California SIP Section, EPA, Region IX, 100 California Street, San Francisco, Calif. 94111.

Copies of the proposed revision are available for public inspection during normal business hours at the EPA Region IX office at the above address and at the following locations:

Lake County Air Pollution Control District, 883 Lakeport Boulevard, Lakeport, Calif. 95453.
California Air Resources Board, 1709 11th Street, Sacramento, Calif. 95814.
Public Information Reference Unit, Room 2922 (EPA Library), 401 "M" Street SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT:

David R. Souten, Chief, California SIP Section, (415-556-7288).

SUPPLEMENTARY INFORMATION: The February 10, 1977 submittal contained revisions to the following rules:

CHAPTER I—GENERAL PROVISIONS

ARTICLE 1—PURPOSE

Section 100

ARTICLE II—DEFINITIONS

Section 200
Section 201
Sections 202-260 (terms defined)

ARTICLE III—HEARING BOARD

Section 300
Section 301

CHAPTER II—PROHIBITIONS AND STANDARDS

ARTICLE I—VISIBLE EMISSIONS

Section 400
Section 401
Section 402—Exclusions

ARTICLE II—PARTICULATE MATTER EMISSIONS

Section 410 (combustion contaminants)
Section 411—Other Sources
Section 412—Sulfur Recovery Units

ARTICLE III—GEOTHERMAL OPERATIONS

Section 421—Sulfur Emissions
Section 422—Geothermal Well Venting

ARTICLE IV—OTHER EMISSIONS OR CONTAMINANTS

Sec.
430 General.
431 Non-agricultural burning.
432-436
437 Animal matter.
438 Orchard heaters.
439 Gasoline storage.
440 New source performance standards.
450 National emissions standards for hazardous air pollutants.

CHAPTER III—MAINTENANCE, MALFUNCTION, EVASION, AND INSPECTION

ARTICLE I—MAINTENANCE

500

ARTICLE II—MALFUNCTION

510
511

ARTICLE III—EVASION

520

ARTICLE IV—INSPECTION

530 Emission data and sampling access.
531 Credentials for entry.
532 Request procedure.
533 Trade secrets.

CHAPTER VI—ORDERS FOR ABATEMENT

600

CHAPTER VII—PENALTIES

900-902

CHAPTER VIII—AGRICULTURAL BURNING

1000-1003
1100 Range improvement burning.
1200 Forest management burning.
1300 Open burning in agricultural operations in the growing of crops or raising of animals.
1400 Wood waste burning.
1500 Enforcement.

CHAPTER IX—HEARING BOARD

ARTICLE I—HEARING

1600 Public hearing.
1601 Notice.

ARTICLE II

1610 Decisions.
1611 Effective date.
1612 Transcripts.

ARTICLE III—FEES

1620

CHAPTER X—VARIANCES

ARTICLE I—INTERIM VARIANCE

1700
1701 Petition.

ARTICLE II—VARIANCE

1710-1714

ARTICLE III—INCREMENTS OF PROGRESS

1720-1725

ARTICLE IV—PROCEDURE

1730 Non-acceptance of petition.
1731-1736

TABLE I—AGENCIES DESIGNATED TO ISSUE AGRICULTURAL BURNING PERMITS

TABLE II—DAILY QUOTA OF AGRICULTURAL MATERIAL THAT MAY BE BURNED BY WATERSHED

TABLE III—GUIDES FOR ESTIMATING DRY WEIGHTS OF SEVERAL CALIFORNIA FUEL TYPES

TABLE IV—PARTICULATE MATTER EMISSIONS STANDARD FOR PROCESS UNITS AND PROCESS EQUIPMENT

TABLE V—TABLE OF STANDARDS, APPLICABLE STATEWIDE

Under section 110 of the Clean Air Act as amended, and 40 CFR Part 51, the Administrator is required to approve or disapprove the regulations as an SIP revision. The Regional Administrator hereby issues this notice setting forth these revisions as proposed rulemaking and advises the public that interested persons may participate by submitting written comments to the Region IX Office. Relative comments received on or before June 30, 1977, will be considered. Comments received will be available for public inspection at the Region IX office and the EPA Public Information Reference Unit.

(Secs. 110, 301, Clean Air Act, as amended (42 U.S.C. 1857c-5).)

Dated: May 11, 1977.

PAUL DE FALCO, JR.
Regional Administrator.

[FR Doc.77-15351 Filed 5-27-77;8:45 am]

[40 CFR Part 52]

[FRL 738-5]

APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Revision to Nevada County Air Pollution Control District Rules and Regulations in State of California

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: It is the purpose of this notice to acknowledge receipt of and invite public comments on revisions to the Nevada County Air Pollution Control District Rules and Regulations which were submitted to EPA by the California Air Resources Board for inclusion in the California State Implementation Plan. These revisions were received on July 25, 1973, April 10, 1975, and April 21, 1976. Since both the April 10, 1975, and April 21, 1975, submittals represent the most recent set of rules and regulations for this Air Pollution Control District, they will be addressed in this notice. Regulations concerning New Source Review are not being considered in this notice, and will be the topic of a separate FEDERAL REGISTER notice. The EPA solicits comments regarding the desirability of approving or disapproving the rules and regulations being considered, especially as to their consistency with the Clean Air Act.

DATES: Comments may be submitted up to June 30, 1977.

ADDRESS: Send comments to: Regional Administrator, Attn.: Air and Hazardous Materials Division, Air Programs Branch, California SIP Section, EPA, Region IX, 100 California Street, San Francisco, CA 94111.

FOR FURTHER INFORMATION CONTACT:

Frank M. Covington, Director, Air and Hazardous Materials Division, Environmental Protection Agency, Attn.: David R. Souten, 100 California Street, San Francisco, CA 94111 (415-556-7288).

SUPPLEMENTARY INFORMATION: The April 10, 1975, and April 21, 1976, submittals contains revisions to the following Regulations:

Regulation I—General revisions.
Regulation II—Prohibitions.
Regulation III—Open burning.
Regulation IV—Permit systems conditions.
Regulation VI—Fees.
Regulation VII—Procedure before the hearing board

Pursuant to Section 110 of the Clean Air Act as amended, and 40 CFR Part 51, the Administrator is required to approve or disapprove the regulations as an SIP revision. The Regional Administrator hereby issues this notice setting forth these revisions as proposed rulemaking and advises the public that interested persons may participate by submitting written comments to the Region IX Office. Relevant comments received on or before June 30, 1977, will be considered. Comments received will be available for public inspection at the Region IX office and the EPA Public Information Reference Unit.

Copies of the proposed revision are available for public inspection during normal business hours at the following locations:

Nevada County Air Pollution Control District, 201 Church Street, Nevada City, CA 95959.
California Air Resources Board, 1709 11th Street, Sacramento, CA 95814.
Environmental Protection Agency, Region IX, 100 California Street, San Francisco, CA 94111.
Public Information Reference Unit, Room 2922 (EPA Library), 401 M Street SW., Washington, D.C. 20460.

(Sec. 110, Clean Air Act, as amended (42 U.S.C. 1857c-5).)

Dated: May 3, 1977.

PAUL DE FALCO, JR.,
Regional Administrator.

[FR Doc.77-15352 Filed 5-27-77;8:45 am]

[40 CFR Part 52]

[FRL 738-6]

APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Revision to Tuolumne County Air Pollution Control District Rules and Regulations in State of California

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: It is the purpose of this notice to acknowledge receipt of and invite public comments on revisions to the Tuolumne County Air Pollution Control District Rules and Regulations which were submitted to EPA by the California Air Resources Board for inclusion in the California State Implementation Plan. These revisions were received on February 10, 1977. Regulations concerning New Source Review are not being considered in this notice, and will be the topic of a separate FEDERAL REGISTER notice. The EPA solicits comments regarding the desirability of approving or disapproving the rules and regulations being considered, especially as to their consistency with the Clean Air Act.

DATES: Comments may be submitted up until June 30, 1977.

ADDRESS: Send comments to: Regional Administrator, Attn.: Air and Hazardous Materials Division, Air Programs Branch, California SIP Section, EPA, Region IX, 100 California Street, San Francisco CA 94111.

FOR FURTHER INFORMATION CONTACT:

Frank M. Covington, Director, Air and Hazardous Materials Division, Environmental Protection Agency, Attn.: David R. Souten, 100 California Street, San Francisco CA 94111 (415-556-7288).

SUPPLEMENTARY INFORMATION: The February 10, 1977, submittal contained revisions to the following rules and regulations:

Rule	
102	Definitions.
202	Visible emissions.
203	Exceptions.
206	Incinerator burning.
207	Particulate matter.
208	Orchard or citrus heaters.
209	Fossil fuel-steam generator facility.
213	Storage of petroleum products.
215	Abrasive blasting.
216	Enforcement.
217	Existing sources.
301	Open outdoor fires.
302	Exceptions to rule 301.
303	Burning permits.
304	Exceptions to rule 303.
307	Exceptions to rule 306.
308	Agricultural burning reports.
319	Open burning of wood waste.
321	Hazard reduction burning.
322	Mechanized burners.
323	Enforcement responsibility.
324	Penalty.
402	Authority to inspect.
404	Upset conditions, breakdown or scheduled maintenance.
407	Circumvention.
409	Public records.
413	Organic liquid loading.
414	Effluent oil water separators.
	REGULATION VI—FEES
	REGULATION VII—PROCEDURE BEFORE THE HEARING BOARD

Pursuant to section 110 of the Clean Air Act as amended and 40 CFR Part 51, the Administrator is required to approve or disapprove the regulations as an SIP revision. The Regional Administrator hereby issues this notice setting forth these revisions as proposed rulemaking and advises the public that interested persons may participate by submitting written comments to the Region IX Office. Relevant comments received on or before June 30, 1977, will be considered. Comments received will be available for public inspection at the Region IX office and the EPA Public Information Reference Unit.

Copies of the proposed revision are available for public inspection during normal business hours at the following locations:

Tuolumne County Air Pollution Control District, Nine North Washington Street, Sonora, CA 95370.

California Air Resources Board, 1709 11th Street, Sacramento, CA 95814.

Environmental Protection Agency, Region IX 100 California Street, San Francisco, CA 94111.

Public Information Reference Unit, Room 2922 (EPA Library, 401 M Street SW., Washington D.C. 20460.

(Sec. 110, Clean Air Act as amended (42 U.S.C. 1857c-5).)

Dated: May 3, 1977.

PAUL DEFALCO, JR.,
Regional Administrator.

[FR Doc. 77-15353 Filed 5-27-77;8:45 am]

[40 CFR Part 204]

[FRL 737-6]

NOISE EMISSION STANDARDS FOR CONSTRUCTION EQUIPMENT

Proposed Miscellaneous Changes to Regulations

AGENCY: Environmental Protection Agency.

ACTION: Proposed rules.

SUMMARY: These rules propose to amend certain provisions of Subpart A, General Provisions, and Subpart B, Portable Air Compressors, of 40 CFR Part 204, Noise Emission Standards for Construction Equipment. These proposed rules clarify and better define a number of points that were discussed by the EPA and Atlas Copco, Inc., et al, manufacturers of portable air compressors, in meetings and correspondence on a petition for review of such regulations filed by the latter party in the U.S. Court of Appeals for the Disrtcit of Columbia Circuit.

DATES: Comments must be received by June 30, 1977, to Director, Noise Enforcement Division (EN-387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT:

Richard G. Kozlowski, Director, Noise Enforcement Division, U.S. Environmental Protection Agency (EN-387), Washington, D.C. 20460 (703-557-7470).

SUPPLEMENTARY INFORMATION: On January 14, 1976 (41 FR 2162), the EPA promulgated a regulation to control noise from portable air compressors. This included general provisions that apply to portable air compressors and to other pieces of construction equipment that will be regulated in the future.

On April 4, 1976, Atlas Copco, Inc., et al., manufacturers of portable air compressors, filed in the U.S. Court of Appeals for the District of Columbia Circuit a petition for review of certain points in the regulation. As a result of meetings held subsequent to the filing of the petition for review, the EPA has concluded that certain provisions of the regulations should be amended or revoked. The following is a brief discussion of each of the proposed changes and the rationale for each propdsed revision.

1. It is proposed to amend in § 204.5-5 paragraphs (c) and (d). As promulgated, this section states that export exemptions are retroactively invalid when a product intended for export is distributed in the United States, but allows the EPA to decline prosecuting the manufacturer if he had acted in good faith to attempt to prevent the violation. Petitioners objected that the provision entails possible criminal liability on the part of the manufacturer for third parties' actions.

While the provision is a statement of how EPA interprets section 10(a)(2) of the Act, it may be read as an attempt by EPA to limit a party's defenses in a criminal action. It is not EPA's intention to create any criminal liability which sections 10 and 11 of the Act do not contemplate. EPA recognizes that, despite the absence of an exemption, a party is not subject to criminal liabilities unless his violation was willful or knowing. To clarify this matter, it is proposed to amend § 204.5-5 so as to restrict its effect to the imposition of administrative orders under section 11(d). By this revision, EPA does not intend to relieve any person of possible criminal liability which the Act itself may place on him.

2. A similar modification is proposed to § 204.5-6 for the same reasons as discussed above. As with the amendment to § 204.5-5, this should not be construed as precluding any criminal liability, but rather as avoiding the creation of criminal liability. A further amendment proposed is to provide manuacturers with an opportunity for a hearing in any case where the Administrator proposes to withdraw a test exemption previously granted.

3. The proposed amendment to § 204.-55-2 expands the causes for which a manufacturer may delay production verification while distributing products

in commerce. As promulgated, the regulation allows up to 45-day delay if weather prevents testing, and a further delay for weather or other reasons beyond the manufacturer's control. The amendment would make conditions beyond the manufacturer's control a valid reason for delay during both the first and second 45-day periods. To implement this and clarify the provisions, § 204.55–2 (a) would be completely rewritten to read as proposed herein.

4. It is proposed to revise in § 204.53 paragraph (a)(1) by adding a new subparagraph (iv) to require manufacturers to maintain a record of the date of manufacture of each compressor that can be traced to a serial number or other coded identification on the required compliance label. This will allow the EPA to determine the time period during which compressors were manufactured without requiring that the actual date of manufacture appear on the label. This scheme will cure the petitioners' objections that putting the date of manufacture on the label could disrupt industry distribution and marketing patterns.

5. It is proposed to amend in § 204.55–8 paragraph (a)(4) by deleting the words "The label * * *" and adding the words "Labels for compressors not manufactured solely for use outside the United States * * *". This clarifies that the labels for compressors that are manufactured for export only need not contain the information required by paragraph (a)(4) of this section. In the same section it is proposed to amend subparagraph (iii) by requiring on the label a serial number or code that can be tied to the records that would be required under the amendment proposed in (4) rather than the date of manufacture of the compressor.

6. It is proposed to amend in § 204.56 paragraph (b) to require that site disqualification be based on the test site requirements as specified in § 204.54–1 (a) and (b) rather than on a judgement of inappropriateness. Also, the manufacturers may now request within 15 days of the Administrator's notice of intent to disqualify, a formal hearing on the potential disqualification of their site. Disqualification will take effect 15 days after receipt of the Administrator's notice or at the conclusion of a hearing if one has been requested.

It is further proposed to revoke paragraph (c) in this section.

7. It is proposed to amend § 204.55–11 (b), § 204.57–1(h), and § 204.59(d) by specifying that the hearings afforded to manufacturers by those sections will be conducted in accordance with section 554 of Title 5 of the United States Code.

8. Section 204.57–8 authorizes the Administrator to require that all compressors of a category or configuration which has failed an audit test be tested to show compliance before distribution in commerce. Petitioners have objected to the imposition of this potentially expensive requirement without a hearing. The proposed revision is intended to grant a hearing limited to the issue of whether the selective enforcement audit was failed. The manufacturer would be required to commence and continue such testing during the progress of this hearing; accordingly, there is proposed a maximum time in which the Administrator must commence the hearing. Subsection (a) would also be amended to allow continued testing of a subgroup of a configuration.

9. The discontinuation of continued testing under § 204.57–8 appears discretionary with the Administrator under promulgated § 204.57–9. The proposed amendment makes clear that if the requirements of § 204.57–9(a) (1) and (2) are met, the Administrator must permit the cessation of 100% testing.

It is also proposed to add paragraphs § 204.57–9(a) (3) and (4). Paragraph (3) would specify that the manufacturer may cease 100% testing upon submitting the report required by paragraph (2), subject to the Administrator's reinitiating testing should he find the report does not fulfill the requirements imposed. Paragraph (4) would provide the manufacturer an opportunity to demonstrate a group of compressors narrower than a category or configuration to which the failure is confined, in which case the 100% testing requirement would be correspondingly restricted.

10. It is proposed to amend § 204.58–3 (d) to narrow the scope of the Administrator's authority to require modification of maintenance, use and repair instructions. The original purpose of the "reasonable and necessary" criterion of this paragraph was to prevent manufacturers from placing unduly strict requirements on users who would have to comply in order to keep their warranty in effect. Since the standard as promulgated does not apply over the useful life of the product, this criterion is not appropriate. EPA thus proposes to revise it to limit the scope of EPA's review of the instructions to whether they are sufficient to fulfill the requirements of the regulations. Should a useful life standard be promulgated, this provision may be amended again.

These amendments are proposed under authority of sections 6, 10, 11, and 13 of the Noise Control Act of 1972, 42 U.S.C. 4905, 4909, 4910, 4912.

Dated: May 25, 1977.

DOUGLAS M. COSTLE,
Administrator.

It is proposed to revise 40 CFR Part 204 as set forth below.

Subpart A—General Provisions

1. In § 204.5–5, it is proposed to amend paragraphs (c) and (d) to read as follows:

§ 204.5–5 Export exemptions.

* * * * *

(c) For purposes of section 11(d) of the Noise Control Act, any export exemption under section 10(b)(2) shall be void ab initio with respect to each new product intended solely for export which is distributed in commerce for use in any state.

(d) The Administrator will not institute proceedings against any manufacturer pursuant to section 11(d)(1) of the Noise Control Act with respect to any product, originally intended for export, but distributed in commerce for use in any state, if it is demonstrated to the Administrator's satisfaction that:

(1) The manufacturer had no knowledge that such product would be distributed in commerce for use in any state; and

(2) The manufacturer made reasonable efforts to ensure that such product would not be distributed in commerce for use in any state. Such reasonable efforts would include consideration of prior dealings with any person which resulted in introduction into commerce of a product manufactured for export only, investigation of prior instances known to the manufacturer of introduction into commerce of a product manufactured for export only, and contract provisions which minimize the probability of introduction into commerce of a product manufactured for export only.

2. In § 204.5–6, it is proposed to amend paragraph (a) by revoking the last sentence and to amend paragraph (b) to read as follows:

§ 204.5–6 Granting of exemptions.

* * * * *

(b) Any exemption granted pursuant to paragraph (a) of this section shall be deemed to cover any product only to the extent that the specified terms and conditions are complied with. A breach of any term or condition shall cause the exemption to be void ab initio for purposes of section 11(d) of the Noise Control Act, and may give rise to an order by the Administrator with respect to any product subject to such exemption, whether distributed before or after such breach. The Administrator may also, upon notice and opportunity for a hearing, withdraw the exemption at any time if he determines that the public health or welfare is being endangered.

Subpart B—Portable Air Compressors

3. In § 204.53, it is proposed to amend paragraph (a)(1) by adding subparagraph (iv) as follows:

§ 204.53 Maintenance of records; submittal of information.

(a) * * *

(1) * * *

(iv) A record of the date of manufacture of each compressor unit subject to this part, keyed to the serial number or other coded identification contained on the label affixed to each compressor pursuant to § 204.55–8(a).

* * * * *

4. In § 204.55–2, it is proposed to amend paragraph (a) to read as follows:

§ 204.55–2 Production verification; compliance with standards.

(a) (1) Prior to distribution into commerce of the compressors of a specific

configuration, the manufacturer of such compressors shall verify such configuration in accordance with this subpart.

(2) Notwithstanding paragraph (a)(1) of this section, the manufacturer may distribute in commerce compressors of that configuration for up to 90 days if weather or other conditions beyond the control of the manufacturer make production vertification of a configuration impossible, provided that the following conditions are met:

(i) The manufacturer shall perform the tests required under paragraph (b) or (c) of this section on such configuration as soon as conditions permit;

(ii) The manufacturer shall maintain records of the conditions which make production verification impossible;

(iii) If on the 45th day following distribution in commerce of compressors of a configuration the manufacturer has not performed the tests required by paragraph (b) or (c) of this section, the manufacturer shall within 5 days notify the Administrator in writing that such compressors have been distributed in commerce and shall provide to the Administrator documentation of the conditions which have made production vertification impossible.

(3) At any time following receipt of notice under paragraph (a)(2)(iii) of this section with respect to a configuration, the Administrator may require that the manufacturer ship test compressors to the EPA test facility in order for the Administrator to perform the tests required for production verification.

* * * * *

5. In § 204.55–8, it is proposed to revise paragraph (a)(4) introductory text and paragraph (a)(4)(iii) as follows:

§ 204.55–8 Labeling.

(a) * * *

(4) Labels for compressors not manufactured solely for use outside the United States shall contain * * * of the label:

* * * * *

(iii) Date of manufacture, which may consist of a serial number or code in those instances where records specified in § 204.53(a)(1)(iv) are maintained.

* * * * *

§ 204.55–11 [Amended]

6. In § 204.55–11, it is proposed to amend paragraph (b) by adding the words "in accordance with section 554 of Title 5 of the United States Code".

7. In § 204.56, it is proposed to amend paragraph (b) and revoke paragraph (c) as follows:

§ 204.56 Testing by the Administrator.

* * * * *

(b)(1) If, based on tests conducted by the Administrator or other relevant information, the Administrator determines that the test facility does not meet the requirements of § 204.54–1 (a) and (b) he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) The manufacturer may at any time within 15 days after receipt of a notice issued under paragraph (b)(1) request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility was in conformance. Such notice will not take effect until 15 days after receipt by the manufacturer, or if a hearing is requested under this paragraph, until adjudication by the hearing examiner.

(3) After any notification issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from such test facility will be acceptable for purposes of this Part.

(4) The manufacturer may request in writing that the Administrator reconsider this determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(5) The Administrator will notify the manufacturer of his determination and an explanation of the reasons underlying it with regard to the requalification of the test facility within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section.

(c) [Revoked]

§ 204.57–1 [Amended]

8. In § 204.57–1, it is proposed to amend paragraph (h) by adding the words "in accordance with section 554 of Title 5 of the United States Code."

9. In § 204.57–8, it is proposed to amend paragraphs (a) and (b), redesignate paragraphs (c) and (d) as (d) and (e), and add a new paragraph (c) as follows.

§ 204.57–8 Continued testing.

(a) If a batch sequence is rejected in accordance with paragraph (b) of § 204.57–7, the Administrator may require that any or all compressors of that category, configuration or subgroup thereof produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require such continued testing of compressors pursuant to paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issue of whether the selective enforcement audit was conducted properly and whether the criteria for batch sequence rejection in § 204.57–7 have been met. In the event that a hearing is requested, the hearing shall begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress shall affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

* * * * *

10. In § 204.57–9, it is proposed to amend paragraph (a) to read as follows:

§ 204.57–9 Prohibition of distribution in commerce; manufacturer's remedy.

(a) The Administrator will permit the cessation of continued testing under § 204.57–8 once the manufacturer has taken the following actions:

(1) Submits a written report which the Administrator determines identifies the reason for the noncompliance of the compressors, describes the problem, and determines identifies the reason for the noncompliance of the compressors, describes the problem, and describes the proposed quality control and/or quality assurance remedies to be taken by the manufacturer to correct the problem, or follows the requirements for an engineering change pursuant to § 204.55–9; and

(2) Demonstrates that the specified compressor category, configuration or subgroup thereof has passed a retest conducted in accordance with § 204.57 and the conditions specified in the initial test request.

(3) The manufacturer may begin testing under paragraph (2) above upon submitting such report, and may cease continued testing upon making the demonstration required by paragraph (2), *Provided*, That the Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a) (1) and (2) of this section.

(4) In lieu of paragraphs (a) (1) and (2) of this section, the Administrator will permit the cessation of continued testing under § 204.57–8 with respect to any subgroup of a nonconforming category or configuration if the manufacturer demonstrates to the satisfaction of the Administrator that such subgroup does not exhibit the cause of the nonconformity of such category or configuration.

* * * * *

11. In § 204.58–3, it is propsed to amend paragraph (d) to read as follows:

§ 204.58–3 Instructions for maintenance, use and repair.

* * * * *

(d) The Administrator will require modifications to the instructions if they are not sufficient to fulfill the requirements of paragraph (a) of this section.

* * * * *

§ 204.59 [Amended]

12. In § 204.59, it is proposed to amend paragraph (d) by adding the words 'in accordance with section 554 of Title 5 of the United States Code."

[FR Doc.77–15357 Filed 5–27–77;8:45 am]

[FRL 737–5]

[40 CFR Part 205]

NOISE EMISSION STANDARDS FOR TRANSPORTATION EQUIPMENT

Proposed Miscellaneous Amendments

AGENCY: Environmental Protection Agency.

ACTION: Proposed rules.

SUMMARY: These rules propose to amend certain provisions of Subpart A, General Provisions, and Subpart B, Medium and Heavy Trucks of 40 CFR Part 205, Noise Emission Standards for Transportation Equipment. These proposed rules clarify and better define a number of points that were discussed by the EPA and Chrysler Corp., et al. manufacturers of medium and heavy duty trucks, in meetings and correspondence on a petition for review of such regulations filed by the latter party in the U.S. Court of Appeals for the District of Columbia Circuit.

DATE: Comments must be submitted by June 30, 1977, to Director, Noise Enforcement Division, (EN-387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT:

Richard G. Kozlowski, Director, Noise Enforcement Division, U.S. Environmental Protection Agency (EN-387), Washington, D.C. 20460 (703-557-7470).

SUPPLEMENTARY INFORMATION: On April 13, 1976 (41 FR 15538), the EPA promulgated a regulation to control noise from medium and heavy duty trucks. This included general provisions that apply both to trucks and to other products that will be regulated in the future.

On June 28, 29, 1976, Chrysler Corp., et al., manufacturers of medium and heavy duty trucks, filed in the U.S. Court of Appeals for the District of Columbia Circuit a petition for review of certain points in the regulation. As a result of meetings held subsequent to the filing of the petition for review, the EPA has concluded that certain provisions of the regulations should be amended or revoked. The following is a brief discussion of each of the proposed changes and the rationale for each proposed revision.

1. It is proposed in § 205.2 to delete paragraph (a)(6) and revise paragraph (a)(26); in § 205.5-2 to correct the typographical error in paragraph (e), to revise paragraph (a) and to add a new paragraph (f). § 205.5-3 is proposed to be deleted. This consolidates provisions for testing exemptions and pre-verification exemptions. The former "pre-verification exemption" is a type of testing exemption, and to avoid confusion it has been incorporated in the testing exemption section, § 205.5-2. In addition, to expedite the procedures in obtaining an exemption for product development and similar programs, a 15 day time limit has been imposed on the Administrator's response. This is to avoid delay in EPA determinations regarding exemption requests, and at the same time provide EPA with the necessary time to review the substance of exemption applications for their adequacy.

2. It is proposed to amend in § 205.5-5 paragraphs (c) and (d). As promulgated, this section states that export exemptions are retroactively invalid when a product intended for export is distributed in the United States, but allows the EPA to decline prosecuting the manufacturer if he had acted in good faith to attempt to prevent the violation. Petitioners objected that the provision entails possible criminal liability on the part of the manufacturer for third parties' actions.

While the provision is a statement of how EPA interprets section 10(b)(2) of the Act, it may be read as an attempt by EPA to limit a party's defenses in a criminal action. It is not EPA's intention to create any criminal liability which sections 10 and 11 of the Act do not contemplate. EPA recognizes that, despite the absence of an exemption, a party is not subject to criminal liability unless his violation was willful or knowing. To clarify this matter, it is proposed to amend § 205.5-5 so as to restrict its effect to the imposition of administrative orders under section 11(d). By this revision, EPA does not intend to relieve any person of possible criminal liability which the Act itself may place on him. The details of what information the Administrator will consider prior to deciding not to institute section 11(d) proceedings is given in more detail in this amended paragraph (d). This provides more guidance to the manufacturers subject to these regulations.

3. A similar modification is proposed to § 205.5-6 for the same reasons as discussed above. As with the amendment to § 205.5-5, this revision should not be construed as precluding any criminal liability, but rather as avoiding the creation of criminal liability. A further amendment proposed is to provide manufacturers with an opportunity for a hearing in any case where the Administrator proposes to withdraw a testing exemption previously granted.

4. It is proposed to amend § 205.51, revising paragraphs (a) (3), (5), (8), (9), and (23). Formerly the definitions of batch, batch sample and test sample only accounted for products being selected randomly. The Administrator's intent was to require random selection only if the test request so specifies, as established in § 205.57-2. The amendment removes this apparent conflict between § 205.57-2 and the definitions. Also, the test request may designate a subgroup of a configuration for testing, as compared to only a category or configuration, e.g. certain vehicles of a configuration manufactured at a specific plant. Section 205.57-2 has been amended similarly. The definitions of category and configuration have been amended to remove incorrect section references.

5. It is proposed to revise § 205.53, paragraph (a)(2)(ii) regarding the maintenance of records. EPA will require record keeping of repairs, maintenance and service when performed on test products prior to required noise testing, if they could affect the noise emissions of the product. Details on who authorized it, the reason for it, and the names of supervisory personnel responsible for conducting it have been deleted. This will limit record keeping more closely to those instances where the kind of repair, maintenance, or service may affect the results of a noise test. This gives the Administrator an adequate check and relieves the manufacturer of what could be a burdensome requirement with limited practical value to the Administrator.

6. The proposed amendment to § 205.55-2 expands the causes for which a manufacturer may delay production verification while distributing products in commerce. As promulgated, the regulation allows up to a 45-day delay if weather prevents testing, and a further delay for weather or other reasons beyond the manufacturer's control a valid amendment would make conditions beyond the manufactuer's control a valid reason for delay during both the first and second 45-day periods. To implement this and clarify the provision, § 205.55-2(a) would be completely rewritten to read as proposed herein.

7. It is proposed to amend § 205.55-4, paragraph (b)(4) and (b)(6). Subparagraph (b)(4)(ii) is revised in a manner similar to § 205.53(a)(2)(ii), to restrict the reporting requirement to those events which could affect the noise emissions of the product. Specifically, the normal early production quality control procedures of a manufacturer need not be reported unless they could affect the noise emissions of the vehicle. Subparagraph (b)(6) is amended such that the authorized representative of the company endorses that all testing and data reported are accurate and in compliance with the applicable regulations to the best of the company's knowledge, not his personal knowledge. This more accurately reflects the level of knowledge the authorized representative can be expected to have.

8. It is proposed to amend § 205.55-6 by revising paragraph (a) to specifically include early production quality control as part of a manufacturers prescribed manufacturing and inspection procedures. This is done in recognition that manufacturers typically employ increased quality control over early production vehicles. EPA intends to restrict the selection of test vehicles subject to such quality control to the extent that the quality control program not bias the resulting noise tests.

9. It is proposed to revise § 205.55-9, paragraph (a), to clarify the intent of that provision. This provision is revised to more explicitly provide that the production verification requirements need not be satisfied prior to the start of the model year so long as they are satisfied prior to the start of production of that configuration.

10. It is proposed to amend § 205.55-11 by deleting subparagraph (a)(3)(v), revising the first clause of paragraph (a)(3), and adding a new paragraph (b). This clarifies the Administrator's intent that vehicles manufactured solely for use outside the United States need be clearly labeled "For Export Only", but need not contain the other information specified in § 205.55-11(a), which is applicable only to vehicles subject to the standards.

11. It is proposed to amend § 205.56. Paragraph (a)(1) clarifies the purposes of testing by the Administrator pursuant to this section; conditions such testing on EPA's using good engineering practice and meeting or exceeding the requirements of § 205.54; and details the rights of manufacturers to observe such testing by the Administrator, copy data, and inspect vehicles before and after EPA tests.

Paragraph (b) as revised requires that site disqualification be based on the test site requirements as specified in § 205.54–1 (a) and (b) rather than on a judgment of inappropriateness. Also, the manufacturers may now request, within 15 days of the Administrator's notice of intent to disqualify, a formal hearing on the potential disqualification of their site. Disqualification will take effect 15 days after receipt of the Administrator's notice or at the conclusion of a hearing if one has been requested.

It is further proposed to revoke paragraph (c). A new paragraph (c) is added detailing when the Administrator will pay the reasonable costs associated with shipment of vehicles for testing under this section.

12. It is proposed to amend § 205.57–1, paragraphs (a), (c), and (e). Paragraph (a) is revised to set a limit on the number of test requests the Administrator may issue under this section when there is no reason to believe the category, configuration or subgroup does not meet the noise emission standard in § 205.52. Paragraphs (a) and (c) also establish that a test request can be issued for a subgroup of a configuration. Revised paragraph (e) extends the reasons allowed for delaying initiation of testing to any conditions beyond the control of the manufacturer, not just ambient test site weather conditions.

13. It is proposed to amend § 205.57–2 by correcting the typographical error in the heading and revising paragraph (e) to include subgroups as subjects of a selective enforcement audit test request, and to reference the requirement that vehicles be manufactured in the normal production process as discussed in § 205.55–5(a).

14. It is proposed to amend § 205.57–5 by deleting paragraphs (a) and (b), and redesignating paragraph (c) as paragraph (a), which will be revised to restrict the reporting of repairs and other actions on the test vehicle to those repairs which could affect noise emissions. The statement and endorsement which accompanies the test report is modified in a way similar to § 205.55–4, production verification report. The requirement to submit a test report at the conclusion of each 24 hour period has been deleted as unduly burdensome for its limited value to the Administrator.

15. It is proposed to amend § 205.57–7 by revising paragraph (d). The provision allowing a manufacturer to voluntarily cease distribution of certain vehicles into commerce in order to terminate selective enforcement audit testing has been modified so that the cessation applies to categories and subgroups, as well as to configurations, and applies only to the plant that produced the vehicles being tested.

16. Section 205.57–8 authorizes the Administrator to require that all vehicles of a category or configuration which has failed an audit test be tested to show compliance before distribution in commerce. Petitioners have objected to the imposition of this potentially expensive requirement without a hearing. The proposed revision is intended to grant a hearing limited to the issue of whether the selective enforcement audit was failed. The manufacturer would be required to commence and continue such testing during the progress of this hearing; accordingly, there is proposed a maximum time in which the Administrator must commence the hearing. Subsection (a) would also be amended to allow continued testing of a subgroup of a configuration.

17. The discontinuation of continued testing under § 205.57–8 appears discretionary with the Administrator under promulgated § 205.57–9. The proposed amendment makes clear that if the requirements of § 205.57–9(a)(1) and (2) are met, the Administrator must permit the cessation of 100 percent testing.

It is also proposed to add paragraph § 205.57–9(a)(3). Paragraph (3) would specify that the manufacturer may cease 100 percent testing upon submitting the report required by paragraph (2), subject to the Administrator's reinitiating testing should he find the report does not fulfill the requirements imposed.

18. It is proposed to amend Appendix I, Table I and III to correct typographical errors. The batch size for code letter D is changed to 26 and larger, and missing acceptance and rejection numbers in the sequence inspection criteria for code letter B are inserted.

These amendments are proposed under the authority of sections 6, 10, 11, and 13 of the Noise Control Act of 1972, 42 U.S.C. 4905, 4909, 4910, 4912.

Dated: May 25, 1977.

DOUGLAS M. COSTLE,
Administrator.

It is proposed to revise 40 CFR Part 205 as set forth below (asterisks indicate wording unchanged from promulgated regulation).

1. Amend 40 CFR 205.2(a) by deleting paragraph (a)(6) and revising paragraph (a)(26) to read as follows:

§ 205.2 Definitions.

(a) * * *

(26) "Testing exemption" means an exemption from the prohibitions of section 10(a) (1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of research, investigations, studies, demonstrations, or training, but not for the purpose of national security.

* * * * *

2. Amend 40 CFR 205.5–2 by correcting the typographical error in the designation of paragraph (e), revising paragraph (a) and adding a new paragraph (f), to read as follows:

§ 205.5–2 Testing exemption.

(a) Except as provided in paragraph (f) of this section any manufacturer requesting a testing exemption must demonstrate that the proposed test program:

* * * * *

(f) Any manufacturer requesting an exemption for products used in the ordinary course of business for product development, production method assessment or market promotion, and in a manner not involving lease or sale, shall state only the general nature of the program and the number of products involved and shall demonstrate that adequate record-keeping procedures for control purposes will be employed. If the manufacturer does not receive a response from the Administrator within 15 working days from the day the Administrator receives the request, the exemption is granted for one year.

§ 205.5–3 [Deleted]

3. Delete 40 CFR 205.5–3.

4. Amend 40 CFR 205.5–5 by revising paragraphs (c) and (d) to read as follows:

§ 205.5–5 Export exemptions.

* * * * *

(c) For purposes of section 11(d) of the Noise Control Act, the Administrator may consider any export exemption under Section 10(b)(2) as void ab initio with respect to each new product intended solely for export which is distributed in commerce for use in any State.

(d) In deciding whether to institute proceedings against a manufacturer pursuant to section 11(d)(1) of the Act with respect to any product originally intended solely for export but distributed in commerce for use in any state, the Administrator will consider:

(1) Whether the manufacturer had knowledge that such product would be distributed in commerce for use in any state; and

(2) Whether the manufacturer made reasonable efforts to ensure that such product would not be distributed in commerce for use in any state. Such reasonable efforts would include consideration of prior dealings with any person which resulted in introduction into commerce of a product manufactured for export only, investigation of prior instances known to the manufacturer of introduction into commerce of a product manufactured for export only, and contract provisions which minimize the probability of introduction into commerce of a product manufactured for export only.

5. Amend 40 CFR 205.5–6 by deleting the last sentence of paragraph (a) and revising paragraph (b) to read as follows:

§ 205.5–6 Granting of exemptions.

* * * * *

(b) Any exemption granted pursuant to paragraph (a) of this section shall

be deemed to cover any product only to the extent that the specified terms and conditions are complied with. A breach of any term or condition shall cause the exemption to be void ab initio for purposes of section 11(d) of the Act and may give rise to an order by the Administrator with respect to any product subject to such exemption, whether distributed before or after such breach. The Administrator may also, upon notice and opportunity for a hearing, withdraw the exemption at any time if he determines that the public health or welfare is being endangered.

6. Amend 40 CFR 205.51 by revising paragraphs (a)(3), (5), (9) and (23) and by amending paragraph (a)(8), and (9) to read as follows:

§ 205.51 Definitions.

(a) * * *

(3) "Batch" means the collection of vehicles of the same category, configuration or subgroup thereof as designated by the Administrator in a test request, from which a batch sample is to be drawn, and inspected to determine conformance with the acceptability criteria.

* * * * *

(5) "Batch sample" means the collection of vehicles of the same category, configuration or subgroup thereof which are drawn from a batch and from which test samples are drawn.

* * * * *

(8) "Category" means * * * with respect to the parameters listed in § 205.-55-2.

(9) "Configuration" means * * * with respect to the parameters listed in § 205.55-3.

* * * * *

(23) "Test sample" means the collection of vehicles from the same category, configuration or subgroup thereof which is drawn from the batch sample and which will receive noise emissions tests.

7. Amend 40 CFR 205.53 by revising paragraph (a)(2)(ii) to read as follows:

§ 205.53 Maintenance of records: submittal of information.

(a) * * *

(2) * * *

(ii) A record and description of all repairs, maintenance and other servicing which were performed before successful testing of the vehicle pursuant to these regulations and which could affect the noise emissions of the product, giving the date and time

* * * * *

8. Amend 40 CFR 205.55-2 by revising paragraphs (a) and (b) to read as follows:

§ 205.55-2 Production verification: compliance with standards.

(a)(1) Prior to distribution into commerce of vehicles of a specific configuration, the first manufacturer of such vehicles shall verify such configuration in accordance with this subpart.

(2) Notwithstanding paragraph (a)(1) of this section, the manufacturer may distribute in commerce vehicles of that configuration for up to 90 days if weather or other conditions beyond the control of the manufacturer make production verification of a configuration impossible, provided that the following conditions are met:

(i) The manufacturer shall perform the tests required under paragraphs (b) or (c) of this section on such configuration as soon as conditions permit;

(ii) The manufacturer shall maintain records of the conditions which make production verification impossible;

(iii) If on the 45th day following distribution in commerce of vehicles of a configuration the manufacturer has not performed the tests required by paragraph (b) or (c) of this section, the manufacturer shall within 5 days notify the Administrator in writing that such vehicles have been distributed in commerce and shall provide to the Administrator documentation of the conditions which have made production verification impossible.

(3) At any time following receipt of notice under paragraph (a)(2)(iii) of this section with respect to a configuration, the Administrator may require that the manufacturer ship test vehicles to the EPA test facility in order for the Administrator to perform the tests required for production verification .

(b) * * *

(1) Testing in accordance with § 205.54 of a vehicle selected in accordance with § 205.55-5;

* * * * *

9. Amend 40 CFR 205.55-4 by revising paragraphs (b)(4) and (b)(6) to read as follows:

§ 205.55-4 Production verification report: required data.

* * * * *

(b) * * *

(4) * * *

(ii) A complete description of any preparation, maintenance or testing which could affect the noise emissions of the vehicle, and which was performed on the test vehicle but will not be performed on all other production vehicles.

* * * * *

(6) The following statement and endorsement:

This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. To the best of _____ (Company name) knowledge, all testing for which data are reported herein was conducted in strict conformance with applicable regulations under 40 CFR § 205.1 et seq., all the data reported herein are a true and accurate representation of such testing and all other information reported herein is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.

_____
(Authorized representative)

* * * * *

10. Amend 40 CFR 205.55-6 by revising paragraph (a) to read as follows:

§ 205.55-6 Test vehicle preparation.

(a) Prior to the official test, the test vehicle selected in accordance with § 205.55-5 shall not be prepared, tested, modified, adjusted, or maintained in any manner unless such adjustments, preparation, modification and/or tests are part of the manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal vehicle assembly and inspection procedures or unless such adjustments and/or tests are required or permitted under this subpart or are approved in advance by the Administrator. For purposes of this section and § 205.55-5, prescribed manufacturing and inspection procedures include quality control testing and assembly procedures normally performed by the manufacturer on like products during early production so long as the resulting testing is not biased by this procedure. In the case of imported products, the manufacturer may perform adjustments, preparations, modification and/or tests normally performed at the port of entry by the manufacturer to prepare the vehicle for delivery to a dealer or customer.

* * * * *

11. Amend 40 CFR 205.55-9 by revising the introductory text of paragraph (a) to read as follows:

§ 205.55-9 Production verification based on data from previous model years.

(a) Production verification of each configuration will be required at the beginning of production of that configuration each model year except that in certain instances,

* * * * *

12. Amend 205.55-11 as follows; in paragraph (a) the first clause of paragraph (a)(3), substitute the language as set forth below for the first two words in the clause which are "The label", paragraph (a)(3)(v) is deleted, and a new paragraph (b) is added. As amended, these paragraphs read as follows:

§ 205.55-11 Labeling—Compliance.

(a) * * *

(3) Labels for vehicles not manufactured solely for use outside the United States shall contain the following information * * * label:

* * * * *

(b) Labels for vehicles manufactured solely for use outside the United States shall contain the words "For Export Only."

13. Amend 40 CFR 205.56 by revising paragraphs (a)(1), (b) and (c) and by adding new paragraphs (a)(3) and (b)(5) to read as follows:

§ 205.56 Testing by the Administrator.

(a)(1) The Administrator may require that any vehicles to be tested pursuant to the Act be submitted to him, at such place and time as he may reasonably designate and in such quantity and for such time as he may reasonably require for the purpose of conducting tests in accordance with test procedures described in § 205.54 to determine whether such vehicles or a manufacturer's test

facility conform to applicable regulations. It is a condition of the requirements under this section that the manner in which the Administrator conducts such tests, the EPA test facility itself, and the test procedures he employs shall be based upon good engineering practice and meet or exceed the requirements of § 205.54.

* * * * *

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on vehicles produced by such manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any such vehicles before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator or other relevant information, the Administrator determines that the test facility does not meet the requirements of § 205.54–1 (a) and (b) he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) The manufacturer may at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility was in conformance. Such notice will not take effect until 15 days after receipt by the manufacturer, or if a hearing is requested under this paragraph, until adjudication by the hearing examiner.

(3) After any notification issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from such test facility will be acceptable for purposes of this Part.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(5) The Administrator will notify the manufacturer of his determination and an explanation of the reasons underlying it with regard to the requalification of the test facility within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section.

(c)(1) The Administrator will assume all reasonable costs associated with shipment of vehicles to the place designated pursuant to paragraph (a) of this section except with respect to:

(i) Any production verification testing performed at a place other than the manufacturer's facility as provided for in § 205.55–2(a)(3), or as a result of the manufacturer's not owning or having access to a test facility;

(ii) Testing of a reasonable number of vehicles for purposes of selective enforcement auditing under § 205.57 or testing of smaller numbers of vehicles, if the manufacturer has failed to establish that there is a correlation between its test facility and the EPA test facility or the Administrator has reason to believe, and provides the manufacturer a statement of such reasons, that the vehicles to be tested would fail to meet the standard prescribed in this subpart if tested at the EPA test facility, but would meet such standard if tested at the manufacturer's test facility;

(iii) Any testing performed during a period when a notice of nonconformance of the manufacturer's test facility issued pursuant to paragraph (b) of this section is in effect;

(iv) Any testing performed at a place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this Part; and

(v) In addition to any vehicles included in paragraphs (c)(1) (i), (ii), (iii), or (iv), up to 10 percent of the manufacturer's production verification test vehicles to be tested during a model year if the Administrator determines it is necessary to test such vehicles at the EPA test site in order to assure that a manufacturer has acted or is acting in compliance with the Act.

14. Amend 40 CFR 205.57–1 by revising paragraphs (a), and (e)(1) and amending paragraph (c) as follows:

§ 205.57–1 Test request.

(a) The Administrator will request all testing under § 205.57 by means of a test request addressed to the manufacturer.

(1) Except as provided in paragraphs (a)(2) and (3) of this section, the Administrator will not issue to a manufacturer during any model year more test requests than a number determined by dividing the total number of vehicles subject to this regulation which the manufacturer projects he will produce during that model year by 25,000 and rounding to the next higher whole number: Except, that the Administrator may issue one additional test request beyond the annual limit to any manufacturer for each time a batch sequence for any category, configuration or subgroup thereof of such manufacturer's production is rejected in accordance with § 205.57–7.

(2) Any test request issued against a category, configuration or subgroup thereof which the Administrator has reason to believe does not meet the standards specified in § 205.52 will not be counted against the annual limit on test requests described in paragraph (a)(1) of this section. Any such request shall include statement of the Administrator's reason for such belief.

(3) Any test request under which testing is not completed will not be counted against the Annual limit on test requests described in paragraph (a)(1) of this section.

* * * * *

(c) The test request will specify the vehicle category, configuration or subgroup thereof selected for testing, the batch selected for testing, the batch size, * * *

* * * * *

(e)(1) Any testing conducted by the manufacturer pursuant to a test request shall be initiated within such period as is specified within the test request: Except, that such initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in any 24-hour period do not permit testing: Provided, that these conditions for that period are recorded.

* * * * *

15. Amend 40 CFR 205.57–2 by correcting the section number in the heading and revising (e) to read as follows:

§ 205.57–2 Test vehicle sample selection.

* * * * *

(e) The test vehicle of the category, configuration or subgroup thereof selected for testing shall have been assembled by the manufacturer for distribution in commerce using the manufacturer's normal production process in accordance with § 205.55–5(a).

16. Amend 40 CFR 205.57–5 by deleting paragraphs (a) and (b) and redesignating paragraph (c) as (a), which will be amended as follows:

§ 205.57–5 Reporting of the test results.

(a) Within 5 working days after completion of testing * * *

* * * * *

(3) * * *

(ii) A complete description of any modification, repair, preparation, maintenance, and/or testing which could affect the noise emissions of the vehicle and which was performed on the test vehicle but will not be performed on all other production vehicles.

* * * * *

(5) The following statement and endorsement:

This report is submitted pursuant to section 6 and section 13 of the Noise Control Act of 1972. To the best of _____ (company name) knowledge, all testing for which data are reported herein was conducted in strict conformance with applicable regulations under 40 CFR 205.1 et seq., all the data reported herein are a true and accurate representation of such testing and all other information reported herein is true and accruate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.

_____
(authorized representative)

17. Amend 40 CFR 205.57–7 by revising paragraph (d) to read as follows:

§ 205.57–7 Acceptance and rejection of batch sequence.

* * * * *

(d) The Administrator may terminate testing earlier than required in paragraph (b) of this section based on a request by the manufacturer accompanied by voluntary cessation of distribution in commerce of vehicles from the category, configuration or subgroup in question manufactured at the plant which produced the vehicles under test: *Provided*, That before reinitiating distribution in commerce of vehicles from

such plant of such vehicle category, configuration or subgroup, the manufacturer must take the action described in § 205.57–9 (a) (1) and (a) (2).

18. Amend 40 CFR 205.57–8 by redesignating paragraphs (c) and (d) as (d) and (e), respectively, adding new paragraph (c), and revising paragraphs (a) and (b) to read as follows:

§ 205.57–8 Continued testing.

(a) If a batch sequence is rejected in accordance with paragraph (b) of § 205.57–7, the Administrator may require that any or all vehicles of that category, configuration of subgroup thereof produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require such continued testing of vehicles pursuant to paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issue of whether the selective enforcement audit was conduced properly and whether the criteria for bath sequence rejection in § 205.57–7 have been met. In the event that a hearing is requested, the hearing shall begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress shall affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

* * * * *

19. Amend 40 CFR 205.57–9 by revising paragraph (a) to read as follows:

§ 205.57–9 Prohibition on distribution in commerce: manufacturer's remedy.

(a) The Administrator will permit the cessation of continued testing under § 205.57–8 once the manufacturer has taken the following actions:

(1) Submits a written report which identifies the reason for the noncompliance of the vehicles, describes the problem and describes the proposed quality control and/or quality assurance remedies to be taken by the manufacturer to correct the problem or follows the requirements for an engineering change pursuant to § 205.55–8, and

(2) Demonstrates that the specified vehicle category, configuration or subgroup thereof has passed a retest conducted in accordance with § 205.57 and the conditions specified in the initial test request.

(3) The manufacturer may begin testing under paragraph (2) of this section above upon submitting such report, and may cease continued testing upon making the demonstration required by paragraph (2) of this section, *Provided*, That the Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a) (1) and (2) of this section.

Appendix I [Amended]

20. Amend Appendix I, Table I by changing the batch size for code letter D to 26 and larger.

21. Amend Appendix I, Table III by revising code letter B to read as follows:

APPENDIX I, TABLE III.—*Batch sequence plans*

Sample size code letter	Number of batches	Cumulative number of batches	Sequence inspection criteria	
			Acceptance No.	Rejection No.
*	*	*	*	*
B	2	2	0	(2)
	2	4	1	4
	2	6	2	5
	2	8	3	5
	2	10	4	6
	2	12	5	6
*	*	*	*	*

[FR Doc.77-15356 Filed 5-27-77;8:45 am]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

[45 CFR Parts 100a, 199]

STATE PLANNING COMMISSIONS PROGRAM

Interstate Planning

AGENCY: Office of Education, HEW.

ACTION: Notice of proposed rulemaking.

SUMMARY: Under the authority contained in Title XII, section 1203(c) of the Higher Education Act of 1965, as amended (20 U.S.C. 1142b(c)), the Commissioner of Education is giving notice that he proposes to issue, with the approval of the Secretary of Health, Education, and Welfare, the following rules and regulations for interstate postsecondary education planning under the State Planning Commissions Program. These rules pertain to the eligibility of applicants and the criteria which the Commissioner will use in evaluating applications. The Commissioner also proposes to include this program among those programs covered by 45 CFR Part 100a.

DATES: All comments, suggestions, or objections to be considered must be received not later than the 45th day after publication of this notice of proposed rulemaking in the FEDERAL REGISTER, or on the next business day if the 45th day is a Saturday, Sunday, or Federal holiday. Comments must be received on or before July 15, 1977.

ADDRESSES: Comments should be addressed to: State Planning Commissions Program, Bureau of Postsecondary Education, Room 4052, Regional Office Building 3, 7th and D Streets, SW., Washington, D.C. 20202. The Commissioner will not acknowledge the comments individually, but they will be available for inspection in Room 4052, Regional Office Building 3, between 8:30 a.m. and 4:00 p.m. on Monday through Friday.

FOR FURTHER INFORMATION CONTACT:

Charles I. Griffith, Telephone 202–245–2671.

SUPPLEMENTARY INFORMATION: The statute provides that grants made under this program be used to plan, develop and carry out interstate cooperative postsecondary education projects designed to increase the accessibility of postsecondary educational opportunities for the residents of the participating States and to assist such States to carry out postsecondary education programs in a more effective and economical manner.

SUMMARY OF COMMENTS PREVIOUSLY RECEIVED

The Commissioner published a Notice of Intent to Issue Regulations implementing the provisions of the Education Amendments of 1976 in the FEDERAL REGISTER of November 29, 1976 (41 FR 52410, 52418). Comments were invited concerning the criteria which the Commissioner should use in approving interstate compact postsecondary educational agencies for participation in the program. Five public conferences were held at various locations between December 13–17, 1976, at which time the Office of Education received comments on this and other provisions of the Education Amendments. Further written comments were also received through December 30, 1976. The following is a summary of the comments received and the Office of Education's response.

Comment. Four comments were received concerning the criteria to be used in approving an interstate compact postsecondary educational agency for purposes of this program. One commenter suggested that a compact agency should be deemed to exist whenever two or more State Commissions submit a joint application for grant funds. Three commenters pointed out that interstate compact agencies are organizations of States created by the member States and established by statute in each member State.

Response. The Commissioner is proposing to approve interstate compact postsecondary educational agencies if they are organizations of States which have been created statutorily by their member States and through which the member States pursue cooperative efforts for the improvement of postsecondary education on an interstate or regional basis.

Comment. The statute provides that the Commissioner may make grants to State Postsecondary Education Commissions, and to interstate compact postsecondary educational agencies, applying jointly for funds to enable the participating Commissions to plan, develop, and carry out interstate cooperative postsecondary education projects. Three comments were received concerning the eligibility of applicants. Two commenters suggested that the statute could be interpreted to allow interstate compact

postsecondary educational agencies to apply for grant funds independently rather than jointly with State Postsecondary Education Commissions. One commenter suggested the opposite approach, that the statute should be interpreted to allow interstate compact agencies to apply for funds only in conjunction with State Commissions.

Response. Since the language of the statute refers to enabling the participating Commissions to conduct interstate cooperative postsecondary education projects, the Commissioner has determined that two or more State Commissions must be the joint applicants for such grant funds, and that interstate compact agencies may apply for such funds in conjunction with the State Commission but not by themselves.

Comment. One commenter suggested that proposed projects submitted under this program by the State Postsecondary Education Commissions be approved by the higher education agencies in the participating States if those agencies are different from the State Postsecondary Education Commissions.

Response. Since the State Postsecondary Education Commissions were established for the purpose of conducting postsecondary education planning activities and projects, and have the authority to do so in their respective States, the Commissioner does not feel that the approval of their proposed projects by other agencies in the respective States should be a Federal requirement.

Comment. Two commenters suggested that the proposed projects should be required to be directed toward significant, long-term, service oriented results.

Response. The Commissioner has included in the funding criteria factors which will enable projects to be evaluated in line with these suggestions.

NOTE.—The Office of Education has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107.

(Catalog of Federal Domestic Assistance Number 13.550; State Planning Commissions Program—Interstate Planning.)

Dated: March 9, 1977.

WILLIAM F. PIERCE,
Acting Commissioner of Education.

Approved: May 21, 1977.

JOSEPH A. CALIFANO, Jr.,
Secretary of Health, Education, and Welfare.

Title 45 of the Code of Federal Regulations is amended to read as follows:

1. In Part 100a, §100a.10(a) is revised to read as follows:

§ 100a.10 Scope.

(a) *Programs.* Unless inconsistent with a statute or regulation, the regulations in this part apply to the following programs:

(1) * * *

(37) Interstate Postsecondary Education Planning under section 1203(c) of the Higher Education Act of 1965, as amended (20 U.S.C. 1142b(c)).

* * * * *

2. A new Part 199 is added, to read as follows:

Sec.
199.1 General provisions regulations.
199.2 Eligibility criteria.
199.3 Funding criteria.

AUTHORITY: Title XII, sec. 1203(c) of Pub. L. 89-329, as amended (20 U.S.C. 1142b(c)), unless otherwise noted.

§ 199.1 General provisions regulations.

Assistance under Title XII, section 1203(c) of the Higher Education Act of 1065, as amended (20 U.S.C. 1142b(c)), is subject to applicable conditions contained in subchapter A of this chapter (relating to fiscal, administrative, property management, and other matters).

(20 U.S.C. 1142b(c).)

§ 199.2 Eligibility criteria.

Applications for grants under this program may be submitted either (a) jointly by two or more State Commissions established pursuant to section 1202(a) of the Act, or (b) jointly by two or more such State Commissions and an interstate compact postsecondary educational agency approved by the Commissioner. For purposes of this program, the Commissioner will give approval to interstate compact postsecondary educational agencies which are organizations of States which have been created statutorily by their member States and through which the member States pursue cooperative efforts for the improvement of postsecondary education on an interstate or regional basis.

(20 U.S.C. 1142b(c).)

§ 199.3 Funding criteria.

In addition to the criteria set forth in § 100a.26(b) of 45 CFR, the Commissioner will evaluate proposed projects in accordance with the following criteria:

(a) The extent to which, as a result of this project, previously unavailable postsecondary education opportunities and services will be made accessible to resdients of each of the participating States.

(b) The degree to which postsecondary education resources in the area included in the proposed project as a whole and in each of the participating States will be more efficiently and economically utilized as a result of the project.

(c) The extent to which there is evidence of a commitment on the part of the participating States toward continued interstate and regional cooperative efforts in postsecondary education.

(d) The extent to which the anticipated results and benefits to be realized from the activities are justified by the cost of the project.

(e) The extent to which the Commissioner will be able to distribute appropriated funds to a maximum number of applicants while still funding projects of sufficient size and scope to accomplish the purpose of this program.

(20 U.S.C. 1142b(c).)

[FR Doc.77-15326 Filed 5-27-77;8:45 am]

National Institute of Education

[45 CFR Part 1470]

EDUCATION AND WORK GRANTS PROGRAM

Proposed Changes in Research Topics

AGENCY: The National Institute of Education, Department of Health, Education, and Welfare.

ACTION: Proposed rule.

SUMMARY: The proposed amendments change the research topics to be funded under this grant program. Changes have been recommended by teachers, researchers, and businessmen so that schools can make students more aware of and better prepared for careers.

DATES: Interested parties are invited to submit written comments, suggestions or objections regarding the proposed rule to the Office of Administration and Management, National Institute of Education, 1200 19th Street NW., Washington, D.C. 20208, on or before July 15, 1977.

Comments received in response to this notice will be available for public inspection in Room 639, of the above address, between 8:00 a.m. and 4:30 p.m., Mondays through Fridays.

FOR FURTHER INFORMATION CONTACT:

EDUCATION AND WORK GROUP, National Institute of Education, 1200 19th Street NW., Washington, D.C. 20208, Mr. Robert W. Stump (202) 254-8827 or Dr. Judy S. Shoemaker (202) 254-5470.

SUPPLEMENTARY INFORMATION: The proposed § 1470.5 identifies eligible projects in two specific areas (a) Occupational Change and Assessment for Career Preparation, and (b) Women and Mathematics. Background information for each of these topics is discussed below.

Occupational change and assessment for career preparation. In mid 1975 the Education and Work Group within NIE proposed that the Institute begin research and development activities into the issues of occupational change with the objective of understanding how educational experiences or programs could improve an individual's ability to change jobs, occupations or employers when they chose to or were required to. The initial focus of these efforts has been on identifying the skills, abilities and attributes that would be useful in a variety of positions and how these skills and abilities play a role in the process of job or occupational change. A better understanding would lead, then, to more effective educational experiences and programs to develop these skills, abilities and attributes.

NIE's efforts in the last two years have reviewed the major research efforts that have identified the skills and abilities considered transferable from one job to another. The majority of these efforts have relied on job or occupational analyses. What is missing is an understanding of how these skills or abilities relate

to job changes and patterns of job change. Research to explore this relationship will be supported.

In addition to concern for identifying the skills, abilities and attributes that are useful in a variety of occupations, NIE's research to date has suggested examination of another central question concerning the process of adaptation to new work situations. How does an individual, performing in one work situation, transfer that performance to another work situation? It has been suggested that an individual's skills, abilities and/or attributes play an important role in this process of adaptation and that educational and training experiences can help develop the individual's capacities to adapt. These skills, abilities and attributes may not be the same ones that are required to perform the work. Research to examine this process of adaptation will also be supported.

Women and mathematics: The Education and Work Group of NIE identified the area of Women and Mathematics as a continuation of the investigation of the problem of occupational segregation by sex, characterized by an unbalanced distribution of occupations by sex. The undersupply of women interested in and prepared for occupations requiring mathematical competence contributes to occupational segregation by sex.

Several researchers have identified mathematics as a critical skill area directly related to educational and occupational choices. Current enrollment data show that fewer women than men choose to study mathematics beyond the minimal school requirements. By choosing not to study mathematics beyond the minimal requirements, women preclude themselves from entering many traditionally male-dominated occupations which require mathematical competency for performance on the job or as a prerequisite to the job, resulting in further occupational segregation by sex. Differences between men and women in their study of mathematics and in their selection of occupations requiring mathematics persist despite the fact that there are no significant differences in arithmetic achievement before the seventh grade.

The research proposed in this area will contribute to the development of ways to assist women to make thoughtful and informed career choices by identifying the major factors affecting women's participation and achievement in mathematics and identifying how education can increase women's perceived occupational and educational choices.

Based on previous experience with grant awards, it is expected that 2,150,000 will be available for an anticipated 12–18 awards in the area of Occupational Change and Assessment for Career Preparation, and that $840,000 will be available for an anticipated 6–10 awards in the area of Women and Mathematics.

The proposed amendments change the Eligible Projects (§ 1470.5) in the current regulations, 45 CFR 1470, published at 41 FR 42663, September 28, 1976.

NOTE.—The National Institute of Education has determined that this document does not contain a major proposal requiring preparation of an Inflationary Impact Statement under Executive Order 11821 and OMB Circular A–107.

(Catalog of Federal Domestic Assistance Number 13.950, Educational Research and Development.)

Dated: March 31, 1977.

HAROLD L. HODGKINSON,
Director, National Institute of Education.

Approved: May 25, 1977.
JOSEPH A. CALIFANO, Jr.,
Secretary.

It is proposed that Title 45, Subchapter B of Chapter XIV, Part 1470 of the Code of Federal Regulations be amended as follows:

§ 1470.2 [Amended]

1. Section 1470.2(c) is deleted.

2. Section 1470.3 is amended to read as follows:

§ 1470.3 Definitions.

As used in this part:

"Research project" means a project designed to increase or synthesize basic knowledge about processes or conditions relevant to career development; and to provide answers to research problems which can be utilized in program development or for making policy decisions relating to education and work program objectives.

* * * * *

3. Section 1470.5 is amended to read as follows:

§ 1470.5 Eligible research projects.

An award will be made for a project which seeks to answer questions in one of two problem areas related to the objective of this part:

(a) *Occupational change and assessment for career preparation.* Research in this problem area must have the objective of improving understanding of how educational experiences and programs can better prepare individuals to perform successfully in a number of jobs or occupations. Movement from training to job might be studied.

(1) A project must address one or more of the following questions:

(i) To what extent may a series of jobs held by individuals be related by similarities of skills, abilities or attributes required by the jobs?

(A) The research must go beyond identifying the relatedness of various jobs.

(B) An applicant may propose to describe and explain how individual movement among various jobs is or is not related to these similarities.

(C) An applicant may propose a variety of ways that jobs can be defined and analyzed, and that the skill, ability or attribute requirements of jobs can be validly defined and assessed.

(ii) What skills, abilities or attributes enable an individual to adapt successfully to new jobs or occupations?

(A) The research must go beyond describing the many ways in which work situations can and do differ from one another.

(B) The research must explore the reasons why individuals are or are not successful in adapting to these changes.

(C) An applicant may propose to examine any of a variety of influences on successful adaptation, including, but not limited to, changes in motivational and reward systems, and changes in patterns or procedures for doing work.

(2) Research supported under this part may analyze the actual experience of individuals. In presenting the design of the study and discussing the potential utility of the findings, an applicant shall take into account the fact that actual job changes are often constrained by a number of influences, including but not limited to the structure of the labor market and realities such as labor union regulations, employer biases in selection and promotion decisions, license and certification requirements and structured job ladders.

(b) *Women and mathematics.* (1) The central research question to be addressed by applications under this problem area is: What are the major positive and negative factors related to the participation and achievement of women in the study of mathematics and their preferences for occupations requiring mathematical competence?

(i) An application may focus on women alone or on male-female differences in school, home, community or work settings.

(ii) The study of mathematics includes computation, comprehension, application, analysis and problem solving at any level of schooling or training. However, an applicant must not limit the study of mathematics to basic computational skills or skills with computational algorithms.

(iii) An applicant investigating participation in mathematics courses must investigate women's enrollment and retention rates in mathematics courses beyond the minimal school requirements.

(2) An applicant must propose to do one or more of the following:

(i) Identify and explain how selected cognitive, affective, educational, familial or social factors influence the achievement and participation of women in grades seven through twelve in their study of mathematics, their attitudes toward the study and usefulness of mathematics and their preferences for occupations requiring mathematical competence. An applicant must include reviews of related research and the development and testing of hypotheses based on a sound theoretical foundation.

(ii) Identify when and how women make major decisions regarding their participation in mathematics courses and occupations requiring mathematical competence.

(A) Identify and explain how major personal characteristics, social influences and characteristics of institutions such as schools and home affect those decisions.

(B) Explain how women make these decisions and how these decisions affect later occupational and educational outcomes.

(C) Decisions must include but not be limited to those made in grades seven through twelve.

(iii) Evaluate the impact of one or more programs designed to increase the participation and achievement of women in grades seven through twelve in mathematics courses or their preferences for occupations requiring mathematical competence.

(A) Identify the significant characteristics of these programs, assess their effectiveness relative to each other or a control group on a variety of achievement, participation and attitude measures, and describe how these programs could be implemented in other locations, including necessary conditions for success such as staff development or other prerequisites.

(B) These programs might include intervention programs or schools where an unusually high percentage of women elect to study mathematics beyond the minimal requirements.

4. Section 1470.7(b)(1)(iii) is amended to read as follows:

§ 1470.7 Application requirements.

* * * * *

(b) * * *

(1) * * *.

(iii) The substantive area, as described in § 1470.5 in which the applicant wishes the project to be reviewed;

* * * * *

5. Section 1470.9(a)(1) and (a)(4) are amended to read as follows:

§ 1470.9 Evaluation criteria.

(a) * * *

(1) The significance of the proposed research for American education (25%), including:

(i) The importance of the problem area from the standpoint of basic knowledge or problems of American education;

(ii) The likely magnitude of the addition that will be made to knowledge if the project is successful, including the generalizability of the results;

(iii) The appropriateness of the proposed activities to the purposes of the grants program as specified in this regulation.

* * * * *

(4) Qualifications of the principal investigator and other professional personnel (10%), as evidenced by:

(i) Experience and previous research productivity; and

(ii) The quality of the discussion and analysis in the application.

Appendix [Deleted]

7. The Appendix is deleted.

[FR Doc.771-15366 Filed 5-27-77;8:45 am]

FEDERAL COMMUNICATIONS COMMISSION

[47 CFR Part 2]

[Docket No. 21116]

AMATEUR RADIO SERVICE

Prohibiting Marketing of External Radio Frequency Amplifiers Capable of Operation on Any Frequency From 24 to 35 MHz; Order Extending Time for Filing Comments and Reply Comments

AGENCY: Federal Communications Commission.

ACTION: Extension of time.

SUMMARY: This document extends the time for filing comments and reply comments by 30 days on a proposed rule that would prohibit the marketing of external radio frequency amplifiers capable of operation on any frequency from 24 to 35 MHz. This extension is the result of filings received from the R. L. Drake Company, the Heath Company, and the American Radio Relay League, Incorporated.

DATES: Comments must be received on or before June 24, 1977, and reply comments must be received on or before July 6, 1977.

ADDRESS: Send comments to: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT:

John A. Reed, Office of Chief Engineer (202-632-7093).

SUPPLEMENTARY INFORMATION:

ORDER EXTENDING TIME TO FILE COMMENTS

Adopted: May 19, 1977.

Released: May 23, 1977.

In the matter of Amendment of Part 2 of Commission's rules to prohibit the marketing of external radio frequency amplifiers capable of operation of any frequency from 24 to 35 MHz, Docket No. 21116.

1. On February 28, 1977, the Commission released a notice of proposed rule making in the above entitled matter.[1] Since that time three requests for an extension of time to file comments have been received from (1) the R. L. Drake Company, filed April 18, 1977, (2) Heath Company, filed April 20, 1977, and (3) the American Radio Relay League, Incorporated, filed April 27, 1977.

2. In light of the above filings, our desire to obtain the most definitive responses possible, and our desire to investigate additional means of achieving our intended goals, a 30 day extension of time from May 25, 1977 to June 24, 1977 for filing Comments and from June 6, 1977 to July 6, 1977 for filing Reply Comments is hereby ordered pursuant to the authority granted by § 0.241(d).

RAYMOND E. SPENCE,
Chief Engineer.

[FR Doc. 77-15320 Filed 5-27-77;8:45 am]

[1] See 42 FR 12203, March 3, 1977.

[47 CFR Parts 2, 97]

[Docket No. 21117]

AMATEUR RADIO SERVICE

Type Acceptance of Equipment Marketed for Use; Order Extending Time for Filing Comments and Reply Comments

AGENCY: Federal Communications Commission.

ACTION: Extension of time.

SUMMARY: This document extends the time for filing comments and reply comments by 30 days on a proposed rule that would require type acceptance of equipment marketed for use in the Amateur Radio Service. This extension is the result of filings received from the R. L. Drake Company, the Heath Company, and the American Radio Relay League, Incorporated.

DATES: Comments must be received on or before June 24, 1977, and reply comments must be received on or before July 6, 1977.

ADDRESS: Send comments to: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT:

John A. Reed, Office of Chief Engineer (202-632-7093).

SUPPLEMENTARY INFORMATION:

ORDER EXTENDING TIME TO FILE COMMENTS

Adopted: May 19, 1977.

Released: May 23, 1977.

In the matter of Amendment of Parts 2 and 97 of the Commission's rules to require type acceptance of equipment marketed for use in the Amateur Radio Service, Docket No. 21117.

1. On February 28, 1977, the Commission released a Notice of Proposed Rule Making in the above entitled matter.[1] Since that time, three requests for an extension of time to file comments have been received from (1) the R. L. Drake Company, filed April 18, 1977, (2) the Heath Company, filed April 20, 1977, and (3) the American Radio Relay League, Incorporated, filed April 27, 1977.

2. In light of the above filings, our desire to obtain the most definitive responses possible, and our desire to investigate additional means of achieving our intended goals, a 30 day extension of time from May 25, 1977 to June 24, 1977 for filing Comments and from June 6, 1977 to July 6, 1977 for filing Reply Comments is hereby ORDERED pursuant to the authority granted by § 0.241(d).

RAYMOND E. SPENCE,
Chief Engineer.
CHARLES A. HIGGINBOTHAM,
Chief, Safety and Special Radio Services Bureau.

[FR Doc.77-15322 Filed 5-27-77;8:45 am]

[1] See 42 FR 12204, March 3, 1977.

[47 CFR Part 73]

[Docket No. 20418; Rm. 2346, 2727]

TELEVISION TABLE OF ASSIGNMENTS

Notice of Proposed Rulemaking; Correction

PREAMBLE

AGENCY: Federal Communications Commission.

ACTION: Correction.

SUMMARY: This document corrects paragraphs 168–169 and part of paragraph 170 of Memorandum Opinion and Order and Notice of Proposed Rule Making in Docket 20418, VHF drop-in proceeding, which were inadvertently omitted from text of document.

DATE: Released April 27, 1977.

ADDRESS: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT:

James J. Gross, Broadcast Bureau (202) 632–7792.

SUPPLEMENTARY INFORMATION:

In the matter of petition for rulemaking to amend television table of assignments to add new VHF stations in the top 100 markets and to assure that the new stations maximize diversity of ownership, control and programming.

Released: April 27, 1977.

In the *Memorandum Opinion and Order and Notice of Proposed Rulemaking* in the above-entitled proceeding, FCC 77–169, Mimeo No. 44289, adopted March 7, 1977 (42 FR 16782, published March 30, 1977), paragraph 169 and part of 170 were inadvertently omitted when the document was printed. The initial portion of the section on Portland-Poland Spring, Maine, of which these paragraphs are a part, should read as follows:

PORTLAND-POLAND SPRING, MAINE
CHANNEL 3

168. *Demographics.* This is the 77th prime time household market according to 1975 ARB rankings (74th in 1974). Portland (1970 pop. 65,116) is located on the southern coast of Maine, and has an ADI of 252,100 TV households. Fluctuating but increasing per capita earnings are projected for this market, even though population is predicted to decline.

169. *Present television service.* Portland has two network VHF stations, and receives a third from Poland Spring. The primary stations are:

WCSH–TV, Portland, Maine, Channel 6, NBC; WGAN–TV, Portland, Maine, Channel 13, CBS; WMTW–TV, Poland Spring, Maine, Channel 8, ABC; and WMEG–TV, Biddeford, Maine, Channel 26, Educational.

Portland receives educational service from Channel 10 in Augusta, Maine.

170. *Short-spacings.* The proposed Channel 3 drop-in at Portland, Maine, if located at the OTP proposed coordinates, would be short-spaced to:

WCAX–TV, Burlington, Vermont, Channel 3, CBS.

In addition, the drop-in would not be short-spaced to the following stations, but would cause new interference to:

WFSB–TV, Hartford, Connecticut, Channel 3, CBS; WBZ–TV, Boston, Massachusetts, Channel 4, NBC; and CBHFT–1, Yarmouth, Nova Scotia, Channel 3 (interference over ocean).

Finally, the drop-in would create potential interference, but would not be short-spaced to, full facility operation of:

Channel 3, Woodstock, New Brunswick, vacant allocation; and CBVAT, St. Pamphile, Quebec, Channel 3 (interference over U.S.).

FEDERAL COMMUNICATIONS COMMISSION,
VINCENT J. MULLINS,
Secretary.

[FR Doc.77–15365 Filed 5–27–77;8:45 am]

[Docket No. 21000]

[47 CFR Part 95]

CITIZENS RADIO SERVICE

Addressing Matter of Further Attenuation of Spurious and Harmonic Emissions From Class D Transmitters; Order Extending Time for Filing Comments and Reply Comments

AGENCY: Federal Communications Commission.

ACTION: Extension of time.

SUMMARY: This document extends the time for filing comments and reply comments by 90 days on a proposed rule that would address the matter of further attenuation of the spurious and harmonic emissions from Class D transmitters operating in the Citizens Radio Service. This extension is the result of a filing received from Consumer Electronics Group of the Electronic Industries Association.

DATES: Comments must be received on or before August 29, 1977, and reply comments must be received on or before September 28, 1977.

ADDRESS: Send comments to: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT:

John A. Reed, Research and Standards Division, Office of Chief Engineer (202–632–7093).

SUPPLEMENTARY INFORMATION:

ORDER EXTENDING TIME TO FILE COMMENTS (42 FR 11252)

Adopted: May 18, 1977.

Released: May 23, 1977.

In the matter of Amendment of the Commission's rules to address the matter of further attenuation of the spurious and harmonic emissions from Class D transmitters operating in the Citizens Radio Service under Part 95, Docket No. 21000.

1. On November 30, 1976, the Commission released a Notice of Inquiry and Proposed Rule Making in the above entitled matter.[1] In a further action in this matter, released February 23, 1977, the time to file Comments was extended by 90 days from March 2, 1977, to May 31, 1977, and the time to file Reply Comments was extended from April 1, 1977, to June 30, 1977. Since that time, a request for an extension of time to file comments has been received from the Consumer Electronics Group of the Electronic Industries Association.

2. Because of the technical nature of this proceeding, which would require testing and other studies by those commenting, the importance of this proceeding to both the manufacturers and licensees, and the Commission's desire to have the most definitive responses possible, a 90 day extension of time from May 31, 1977, to August 29, 1977, for filing Comments and from June 30, 1977, to September 28, 1977, for filing Reply Comments is hereby ordered pursuant to the authority granted by § 0.241(d).

RAYMOND E. SPENCE,
Chief Engineer.

[FR Doc.77–15321 Filed 5–27–77;8:45 am]

[1] See 42 FR 11252, February 28, 1977.

notices

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.

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

AMERICUM-241

Price Increase

Correction

In FR Doc. 77-14816 appearing on page 26450 in the issue for Tuesday, May 24, 1977, in the fourth paragraph "effective May 1977" should read "effective May 24, 1977".

ERDA FEDERAL ASSISTANCE MANUAL

Notice of Issuance

AGENCY: Energy Research and Development Administration.

ACTION: Notice.

SUMMARY: ERDA is issuing an ERDA Federal Assistance Manual to carry out certain assistance purposes authorized in ERDA legislation. The Manual implements OMB Circular No. A-110 and Federal Management Circular 74-7 which thereby establishes a uniform administrative system for application, award, and administration of assistance awards.

DATES: Effective date—The grants policy and procedures in the Manual are authorized for interim use on May 31, 1977. Comments are invited on the Manual on or before July 15, 1977.

ADDRESSES: Comments should be addressed to: Mr. David F. Mears, Division of Procurement, C-167, Policy Development Branch, U.S. Energy Research and Development Administration, Washington, D.C. 20545. To assist ERDA in considering and acting on comments, it would be helpful if they could be arranged in the Chapter and Section sequence of the proposed Manual, with any general comments or suggestions at the beginning.

FOR FURTHER INFORMATION CONTACT:

David F. Mears (301-353-4541).

SUPPLEMENTARY INFORMATION: The FEDERAL REGISTER, Vol. 41, No. 82, April 27, 1976 Notice (41 FR 17602) which established an Interim Grant Procedure is superseded.

AUTHORITY: Section 105 of the Energy Reorganization Act of 1974 (Pub. L. 93-438).

Date: May 20, 1977.

M. J. TASHJIAN,
Director of Procurement.

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION, FEDERAL ASSISTANCE MANUAL

(SIXTH DRAFT) APRIL 1977

Chapter

1—Information About the ERDA Federal Assistance Manual.
2—General Policies and Considerations.
3—Identification of ERDA Programs.
4—Submission of Proposals.
5—Evaluation and Selection of Potential Awardees.
6—Award Instruments.
7—Negotiation and Award of Agreement.
8—Postaward Administration.
9—Additional Funding Support.
10—Closeout of ERDA Grant and Cooperative Agreements.

CHAPTER 1—INFORMATION ABOUT THE ERDA FEDERAL ASSISTANCE MANUAL

Sec.

100 Purpose.
101 Scope.
102 Applicability.
103 Authority to prescribe policies, standards, and procedures.
104 Establishment, amendment, and dissemination.
105 General organization, numbering, and citation.
106 Deviations.
107 Incorporation of applicable Federal policies.
108 Definitions.

100 Purpose.

This Manual implements ERDA's statutory authority to award grants and cooperative agreements by establishing uniform policies and procedures relating to the award and administration of ERDA assistance and support through these instruments. The effect of this Manual is to establish a formal assistance system to carry out assistance purposes. This Manual itself does not authorize the use of a grant or cooperative agreement or the making of assistance awards where statutory authority has not been provided. This assistance system is separate and distinct from the procurement system which procurement system is subject to the Federal Property and Administrative Services Act of 1949, and the Federal and ERDA Procurement Regulations.

101 Scope.

a. *Process.* Any matter which impacts or must become a part of the administration of ERDA assistance and support, from project identification through closeout of the assistance instrument, is within the scope of the process described in this manual. Subject areas covered in other ERDA manuals and publications will be referenced, when applicable, not repeated.

b. *Assistance instruments.* Although various forms of grants are the customary vehicle used to convey support or assistance, the scope also of this Manual includes such functionally similar vehicles as used equipment grants, financial awards to inventors under Pub. L. 93-577, cooperative agreements, and the like. None of the foregoing instruments or arrangements may be made or entered into except as provided for in this Manual. The scope excludes interagency agreements and memoranda of understanding between or among Federal government components or between ERDA and other non-Federal government entities, loan guarantees, price supports, guaranteed purchase agreements, programs or projects the prime purpose of which is the dissemination of technical information and/or the provision of specialized services or counseling, Special Research Support Agreements, or any other arrangements within the scope of the Federal and ERDA Procurement Regulations. Grants and other support arrangements, which are established separately to implement memoranda of understanding with state and local governments are subject to the provisions of this Manual.

c. *Certain ERDA activities.* The activities and methods described in ERDA Manual Chapter 7603, Use of ERDA Facilities and Equipment for Private Purposes, and ERDA Manual Appendix 1701, Part 1, G. Use of ERDA-Owned Facilities are outside the scope of this Manual.

d. *Construction.* The Manual does not provide coverage regarding construction grants or construction under grants at this time. Coverage for the construction subject area will be added at a later time.

102 Applicability.

a. *Organizations.* This Manual is applicable to all ERDA organizations staffed by ERDA employees.

b. *Types of Recipients.* The policies in this Manual are applicable to grants and cooperative agreements with institutions of higher education, hospitals, other nonprofit organizations, individuals, profit making organizations, and State and local governments except otherwise specified herein.

103 Authority to prescribe policies, standards, and procedures.

The ERDA Federal Assistance Manual is issued by the Director of Procurement pursuant to the authority of Section 105 of the Energy Reorganization Act of 1974 (Pub. L. 93-438), other applicable law, and ERDA Manual Chapter 0155.

104 Establishment, amendment, and dissemination.

a. *Establishment.* The ERDA Federal Assistance Manual (ERDA-FAM) is hereby established. Although the Manual is established primarily for internal use by ERDA employees, the Manual and changes will be published in the FEDERAL REGISTER in the form of a public notice.

b. *Amendment.* Changes to the Manual will be issued using serially numbered Manual Instructions. Changes will be in printed looseleaf form containing revised or additional pages, paragraphs or sections. Each revised or new page of a change will bear the date of the change and the change number.

c. *Dissemination.* It is ERDA policy to make the Manual available to the public. Copies of the Manual including formal changes when published in the FEDERAL

REGISTER may be purchased at nominal cost, from the Superintendent of Documents, United States Government Printing Office, Washington, DC 20402.

105 General organization, numbering, and citation.

a. *Organization.* The Manual is organized into chapters which correspond to the sequence of the normal process taken by ERDA in evaluating, awarding, and administering a grant or cooperative agreement action from identification of a project through award instrument closeout. Chapters are subdivided into sections which cover single subjects within the scope of the chapter.

b. *Numbering.* Chapters are designated in ascending serial order from the beginning of the Manual. Each chapter is further subdivided into sections. A new one hundred series number is used to number sections within each chapter. For example, Chapter 1 uses 100 through 199, Chapter 2 uses 200 through 299, etc. Sections may be further subdivided into paragraphs which are lettered and numbered: a.1.(a)(1)(i).

c. *Citation.* The ERDA Federal Assistance Manual may be identified, for purposes of brevity, as ERDA–FAM followed by the section number, i.e., "ERDA–FAM 104a.".

106 Deviations.

a. *Purpose.* The deviation procedure is intended to maintain consistency and provide information about needed changes. Therefore, deviations which include recommendations for improvement or constructive changes are encouraged.

b. *Applicability.* A deviation shall be considered to be any of the following:

1. When a proposed provision covering the same subject matter varies from, or has the effect of altering a provision or its application as prescribed by this Manual;

2. When a proposed provision is inconsistent with the intent, principle and substance of a prescribed provision or related Manual coverage of the subject matter;

3. Omission or alteration of any prescribed award instrument provision except as authorized herein;

4. Use of prescribed award instruments for other than their intended purpose(s) or beyond prescribed dollar ceilings;

5. When forms other than those prescribed by this Manual are used for the same purpose;

6. Alteration of forms prescribed in this Manual except as authorized herein;

7. When minimums or maximums beyond those imposed by this Manual are desired;

8. When any policy, procedure, method, or practice is inconsistent with this Manual.

c. *Approval of deviations.* Deviations will be authorized when essential to effect necessary assistance or support actions or where special circumstances make such deviations clearly in the best interests of the Government. Such deviations will be approved only by the Director of Procurement or his duly authorized representative at ERDA Headquarters. Appropriate coordination with Headquarters staff and program divisions will be obtained by the Director of Procurement.

d. *Request for deviations.* Requests shall be submitted to the Director of Procurement, ERDA Headquarters. Prior verbal communication is encouraged. Such requests should be submitted as far in advance as exigencies of the situation will permit. Each request for a deviation shall:

1. Identify the Manual reference affected;

2. Describe the deviation, the relevant Manual section, the proposed language, its intended effect, and the circumstances in which it will be used;

3. Indicate whether the deviation has been requested previously, and if so, the applicable circumstances;

4. Provide the proposed recipient's name and the dollar value;

5. Provide the rationale in support of the request including any pertinent background information; and

6. Suggested revision to the Manual should be made whenever appropriate. Requests will be considered on an expedited basis. Appropriate coordination with Headquarters staff and program divisions will be obtained by the Director of Procurement.

107 Incorporation of applicable Federal policies.

This Manual contains ERDA implementation of the following Office of Management and Budget Circulars and Federal Management Circulars applicable to Federal agencies which administer grants and other support instruments:

FMC 73–6 (A–88), "Coordinating indirect cost rates and audit at educational institutions."

FMC 73–7 (A–101), "Administration of college and university research grants," Parts I and II.

FMC 73–8 (A–21), "Cost principles for educational institutions."

FMC 74–4 (A–87), "Cost principles applicable to grants and contracts with State and local governments."

FMC 74–7 (A–102), "Uniform administrative requirements for grants-in-aid to State and local governments." (A–110), "Grants and agreements with institutions of higher education, hospitals, and other nonprofit organizations."

108 Definitions.

a. *General.* All terms used in this Manual which are defined in the statutes pertaining to ERDA, shall have the meaning given to them in the relevant statutes. The other terms defined in this Section shall have the meanings set forth below when used in this Manual or in any correspondence, changes, or other documents relating to grants and cooperative agreements, unless the context clearly requires that a different meaning or definition is prescribed for a particular part or portion thereof. It is recognized that common and universally accepted definitions of many terms in the grants, cooperative agreements, and assistance arena are not available, therefore, the following definitions are intended to be functionally accurate within the context of ERDA and its programs.

b. *Definitions.* 1. *Administrator.* The Administrator of the United States Energy Research and Development Administration or his designee.

2. *Applied research.* Applied research consists of the effort which (1) normally follows basic research, but may not be severable from the related basic research, (2) attempts to determine and expand the potentialities of new scientific discoveries or improvements in technology, materials, processes, methods, devices, and techniques, and (3) attempts to "advance the state of the art." Applied research involves the study of phenomena relating to specific, known needs in connection with the functional characteristics of a system. Applied research does not include any efforts when their principal aim is the design, development, or test of specific articles or services to be offered for sale, which are within the definition of the term development.

3. *Assistance.* Means the provision of money, services, or property to a non-Federal recipient for the purpose of supporting or stimulating activities in the national interest. Federal assistance may be Congressionally specified and directed, or may be Congressionally authorized and encouraged within general parameters for specific definition and implementation by a particular component of the Executive Branch.

4. *Authorized institutional representative.* The administrative official(s) who is authorized to represent the proposing organization in the submission of a proposal, and/or negotiations, or signature on behalf of the proposing organization. The submitting organization is responsible for indicating which of their officials ERDA is to deal with and for what purposes if there is more than one.

5. *Award date.* The date the award is signed by ERDA. The award date will usually also be the effective date as defined in 17. below unless some other effective date is specified in the award.

6. *Awarding officer.* This is a single generic term which when used may mean either grants officer and/or cooperative agreements officer.

7. *Basic research.* Is that type of research which is directed toward increase of knowledge in science wherein the primary aim of the investigator is a fuller knowledge or understanding of the subject under study, rather than a clear or direct practical application thereof. This includes analytical and experimental activities which primarily seek to increase the understanding of fundamental phenomena. The end product is usually a report, although experimental hardware may be involved. In basic research, the particular use of the knowledge is not foreseen or identified at the beginning of the effort.

8. *Budget.* The financial plan for expenditure of all project funds, including grant funds or other Federal assistance, which is developed by the performing organization.

9. *Continuing grant.* See Section 903a.

10. *Contract.* The term contract as used herein means procurement contract subject to the Federal and ERDA Procurement Regulations not this ERDA–FAM. The term also includes the Special Research Support Agreement as prescribed in ERDA–PR 9–16.–5002–8.

11. *Cooperative agreement* See Section 621a.

12. *Cooperative agreement officer.* Any employee or officer of ERDA who has been delegated the authority to take final action on cooperative agreements including the obligation of ERDA funds or the formal commitment of ERDA as an organization by signing cooperative agreement awards and modifications thereto.

13. *Cost sharing.* See Section 205a.

14. *Development.* Means the systematic use and practical application of investigative findings and theories of a scientific or technical nature toward the production of, or improvements in, useful products to meet specific performance requirements but exclusive of manufacturing and production engineering. The dominant characteristic is that the effort be pointed toward specific energy problem areas to develop and evaluate the feasibility and practicability of proposed solutions and determine their parameters. Development includes studies, investigations, initial hardware development and ultimately development of hardware, systems, or other means for experimental or operational test.

15. *Discrete grant.* See Section 902a.

16. *Educational institution.* Any non-profit post secondary institution which is recognized by an appropriate State education authority. Normally such institution will (1) have faculty, (2) offer courses of instruction, and (3) award a degree or certificate upon completion of a specific course of study.

17. *Effective date.* The date when the charging of allowable project costs against the award may begin. Normally the effective date is concurrent with the award date but may be later than the award date. Anticipatory costs incurred prior to the effective date

may be allowed when specifically provided for in the award.

18. *ERDA*. Energy Research and Development Administration.

19. *Expiration date*. The date after which no additional costs may be charged to the award except that for educational institutions as defined above, costs incurred for report preparation will be recognized as allowable up to 90 days after the expiration date. Expenditures of ERDA funds may be continued after the expiration date to satisfy obligations of funds and/or accrued expenditures incurred on or before that date.

20. *Grant (agreement)*. A written agreement issued in accordance with this Manual by which money or property is paid or transferred by the Federal Government to a recipient under a project that provides financial assistance, support, or stimulation to accomplish a public purpose where no substantial involvement is anticipated between ERDA and the recipient during performance of the project.

21. *Grantee*. The entity which accepts a grant award and thereby assumes legal and financial responsibility and accountability both for the awarded funds or property and for the performance of the grant-supported activity. A grantee is the recipient which accepts the grant.

22. *Grant period*. The grant period is that period of time beginning on the award date which extends through the expiration date.

23. *Grants officer*. Any employee or officer of ERDA who has been delegated the authority to take final action on grants including the obligation of ERDA funds by signing grant awards and modifications thereto.

24. *Grant specialist*. An employee of ERDA who is assigned the responsibility to negotiate and administer grant terms, conditions, and budget.

25. *Local government*. The term "local government" means a local unit of government including specifically a county, municipality, city, town, township, local public authority, special district, intrastate district, council of governments, sponsor group representative organization, and other regional or instrastate government enity, or any agency or instrumentality of a local government exclusive of institutions of higher education, hospitals, and school districts.

26. *New grant*. The initial grant (with a new grant instrument number) made where there is no current grant or has not been a prior grant for a particular project.

27. *Nonprofit organization*. Any corporation, trust, foundation, trade association, or other institution (1) which is entitled to exemption under Section 501(c)(3) of the Internal Revenue Code or (2) which is not organized for profit and no part of the net earnings of which inure to the benefit of any private shareholder or individual. Within the context of this Manual, the terms nonprofit and not-for-profit are considered synonymous.

28. *Partial funding*. This term means less than full funding.

29. *Patent Counsel*. This term means the ERDA Patent Counsel assisting the awarding activity or office.

30. *Principal Investigator (PI)/Project Director (PD)*. The individual designated by the recipient who will be responsible for the scientific or technical direction of the project. The term "Principal Investigator" generally is used in research projects, while the term "Project Director" generally is used in other than research projects.

31. *Profit making organization*. An entity, notwithstanding the form of organization, which is organized for profit and which provides that its net earnings inure to the benefit of any private shareholder or other ownership interest. This term includes profit making educational institutions or organizations.

32. *Program (project) officer*. The ERDA scientific or technical employee designated in the award instrument as having responsibility for the scientific and technical aspects of award administration and for liaison with Principal Investigators and Project Directors.

33. *Project*. The activity outlined in the proposal and approved for ERDA support.

34. *Project period*. See Section 903 b.

35. *Proposal*. The submission of a request for ERDA support or assistance for the performance of a specific activity.

36. *Recipient*. The term recipient indentifies the organizational entity which is a signatory party to the Federal award, notwithstanding whether the award is a grant or cooperative agreement.

37. *State government*. The term "State" means any of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, any territory or possession or instrumentality thereof, or interstate organization exclusive of State institutions of higher education and hospitals.

38. *Step funded*. This term means funding awarded beyond the first year in approximately equal decreasing increments over the grant period. This is one form of partial funding.

39. *Subagreement*. A contract or purchase order from a recipient to a third party to carry out one or more of the purposes for which the award was made or to furnish services or supplies necessary to complete the project for which an award was made.

40. *Supplement*. See Section 904.

Chapter 2—General Policies and Considerations

Sec.
200 Policy.
201 Background—Nature of ERDA Grant Activity.
202 Grant and Cooperative Agreement Administration Organization, Authorities and Responsibilities.
203 [Reserved]
204 [Reserved]
205 Cost Participation.
206 Conflicts of Interest [Reserved]
207 Grants and Cooperative Agreements to Individuals.
208 Cash Depositories.
209 Bonding and Insurance.
210 Standards for Financial Management Systems.
211 Competition.
212 Civil Rights.
213 Sex Discrimination.
214 Handicapped.
215 Patent Rights, Copyrights, Technical Data.
216 Clear Air—Clean Water.
217 Security.
218 Waiver of "Single" State Agency Requirements.
219 Protection of Human Subjects.
220 Small and Minority Business Participation.
221 Buy American Act.

200 Policy. a. *Policy*. ERDA has been charged by the Congress to support, participate, assist, encourage, stimulate, and to serve as a catalyst to motivate individuals, educational institutions, nonprofit organizations, commercial firms, and in certain program areas State and local governments to apply their efforts toward meeting the nation's energy needs. ERDA policy is, therefore, to use the means provided in this Manual to carry out these nonprocurement objectives.

1. *Primary objective of ERDA grants and cooperative agreements*. The primary objective of ERDA grants and cooperative agreements is to support or stimulate those parties who offer meritorious ideas and proposals which offer the expectation of making a meaningful contribution toward meeting the Nation's energy needs. The primary objective is not intended to be a laissez faire provision of generalized support.

2. *What is an ERDA grant*. An ERDA grant is neither a pure gift where little if anything is expected to way of performance for the resources provided, nor an ERDA specified requirement where failure to perform as specified is met with the consequences of default. An ERDA grant as compared to a procurement contract is a less restrictive instrument which makes resources available to grantees to perform grantee proposed projects. Grantees are expected to use responsibly the grant resources and apply their dedicated efforts toward the successful achievement of the grant project. In keeping with ERDA's policy of making awards to meritorious proposals, each grant will require a report to ERDA of the progress made and results achieved with the resources ERDA provided. This report will provide feedback vital to assessing the effectiveness with which ERDA is carrying out its Congressional charge.

3. *What is an ERDA cooperative agreement*. An ERDA cooperative agreement is designed to implement certain projects where ERDA desires to assist or support a recipient in a partnership or joint venture relationship or where there is substantial ERDA interest.

201 Background—Nature of ERDA Grant and Cooperative Agreement Activity.

Grants and cooperative agreements may be awarded for research, development, planning, manpower training, conferences, educational support, materials or equipment, awards to inventors under P. L. 93-57, or demonstration and construction projects without regard to whether the awardee is educational, nonprofit, commercial, or a State and local government. Because ERDA legislation does not prescribe on-going "financial assistance" programs as such to State and local governments, formula and block grants, grants-in-aid to State or local governments are not expected to be used. Where the interests of State or local governments coincide with ERDA program interests, a cooperative agreement, contract, or grant may be used to fund projects of mutual interest.

202 Grant and Cooperative Agreement Administration Organization, Authorities, and Responsibilities.

a. *Organization*. 1. The Director, Division of Procurement, is responsible for the development, promulgation, and administration of policy, procedures, and standards, consistent with assigned policy responsibilities of other ERDA HQ staff offices, with respect to the solicitation of proposals, award administration, and award instruments for grants and cooperative agreements.

2. ERDA organizational elements which are responsible for entering into procurement contracts, may also be assigned the responsibility for preparation, execution, and administration of grants and cooperative agreements.

b. *Authority to enter into grants and cooperative agreements*.

1. *Source*. The fundamental authority for awarding grants and cooperative agreements is derived from ERDA legislation. This authority is vested in the Administrator and may only be used when and to the extent that the authority is formally redelegated.

2. *Delegation of authority*. To be added.

c. *Responsibilities*. 1. *Grants officer*. The Grants Officers are the only representatives of ERDA who may award grants. Grants Officers

are primarily responsible for the negotiation, execution, administration, termination, and closeout of grants. Their specific responsibilities include the following:

(a) Execute and administer grants in such a manner as to safeguard the interest of the United States.

(b) Obtain necessary approvals and otherwise comply with applicable directives issued by the Administrator or his designee; Heads of Headquarters and field offices.

(c) Personally sign with an original signature all grants and modifications. Signing shall not be accomplished by facsimile stamps or by proxy.

(d) Assure that funds and the authority to obligate such funds are available prior to execution of award.

(e) Support the Project Officer in project planning and administration involving grants.

(f) Perform business and budget evaluation of proposals. (See Section 503)

(g) Evaluate the responsibility of the recipient prior to award. (See Section 703)

(h) Comply with the procedure in Section 212 regarding Civil Rights prior to award.

(i) Conduct negotiations of awards with prospective recipients and make modifications to existing awards with assistance of the Program Officer and other appropriate advisors.

(j) Decide which award instrument is appropriate. (See Section 602)

(k) Monitor the financial and administrative aspects of the award during the award period.

(l) Prepare award documents.

(m) Maintain a current, official award file including award documents, correspondence with the recipient and relevant information concerning recipient performance. (See section 718)

(n) Closeout of, or termination of all awards. (See Chapter 10)

(o) Submit award information on each grant and cooperative agreement award to the Director of Procurement using the Contract Information System. (See Section 714)

(p) Coordinate the above activities with the General Counsel and other staff offices where appropriate.

2. *Cooperative agreements officer.* A cooperative agreements officer is a contracting officer who has been delegated the additional authority to award cooperative agreements as described in paragraph b. Contracting officers who have been authorized to sign cooperative agreements are the only representatives of ERDA who may enter into cooperative agreements. The responsibilities of the cooperative agreements officer for management of cooperative agreements are described in paragraph c.1. of this section.

3. *Project officer.* The project officer is the ERDA scientific or technical program employee responsible for the scientific and technical aspects of proposal evaluation and grant and cooperative agreement administration, and for liaison with their counterparts under the award. The project officer is not authorized to execute grants, or cooperative agreements, or issue orders which either commit or change the commitment made by the grants or cooperative agreements officer. The head of the program office should designate individuals in headquarters, a field office or both to be responsible for performing project officer functions for each award. The project officer's specific responsibilities (to the extent delegated) include the following:

(a) Assists in the preparation of Program Opportunity Notices, Program Research and Development Announcements, Notices of Program Interest, and other methods for stimulating the submission of proposals.

(b) Prepares technical evaluation criteria, methods of scoring and evaluating proposals where applicable.

(c) Defines project objectives, needs, goals, the program purpose, and ERDA role in the project.

(d) Defines reporting requirements and the technical data, if any, to be furnished to ERDA.

(e) Prepares project descriptions when needed. (See Section 603.)

(f) Participates in the evaluation of proposals with assistance from the awarding officer regarding business factors. Responsible for preparing written evaluation.

(g) Initiates and coordinates the approval of the procurement request, ERDA Form 799.

(h) Responsible for developing recommendations regarding selection in accordance with Section 505, the amount and duration of the award, and the parameters of the project to be supported.

(i) Responsible for taking action to make funds available to the awarding officer for obligation at execution of the award.

(j) Recommends instrument category in accordance with guidance provided in Section 602, and if a grant, whether it should be discrete or continuing as defined in Section 901.

(k) During negotiations, reviews and approves revisions to the project or project description in areas such as the proposed resources or proposed equipment requirements.

(l) Monitors as necessary the recipients project performance under the award consistent with the constraints of the award.

(m) Reviews the recipients periodic cost/schedule/technical progress reports and other items that require technical review and/or approval.

(n) Notifies the Awarding Officer of the causes of, and recommended course of action on, performance difficulties or other anticipated problems. Timely notification is important.

(o) Make judgments regarding the value of technical and overall performance under the award.

(p) Reviews requests for interim payments (partial or progress) submitted by recipients, when applicable, and reconcile payment requests with recipient progress reports.

(q) Reviews and evaluates recipient's proposals for project changes.

(r) Reviews articles and final reports, for excellence and consistency with ERDA policies prior to publication.

(s) At project completion, advises the Awarding Officer of the following:

(1) Whether performance under the award achieved the stated objectives.

(2) What disposition of any government-furnished or acquired property is recommended.

(t) Prepares written technical and program responses to protests, inquiries, or other actions which require explanation or justification for the technical or program decisions.

4. *Patent Counsel.* The ERDA patent counsel assisting the procuring activity is responsible for implementing award provisions relating to patents, data and copyrights and has the following specific responsibilities:

(a) Approves non-standard patent, data and and copyright clauses,

(b) Negotiates and processes requests for waiver of government patent rights and requests for greater rights;

(c) Reviews invention disclosures, patent applications and interim and final reports of subject inventions;

(d) Reviews and approves release of technical and scientific information for publication;

(e) Approves clearance of grants and agreements regarding grantee's or participant's compliance with patent provisions thereof (patent certification).

(f) Examines records of grantee or participant to ensure compliance with invention reporting;

(g) Conducts and approves patent clearance.

203 [Reserved]

204 [Reserved]

205 Cost Participation.

a. ERDA policy on cost participation.

To be added.

b. Criteria and procedures for the allowability of cash and in-kind contributions.

1. *Purpose.* This subsection sets forth criteria and procedures prescribed by OMB Circular A-110, Attachment E for the allowability of cash and in-kind contributions made by institutions of higher education, hospitals, other nonprofit organizations, State and local governments, subrecipients and FMC 74-7, Attachment F or third parties in satisfying cost sharing and matching requirements in subsection 205 a. Also established are criteria for the evaluation of in-kind contributions made by third parties, which supplements the guidance to Federal Management Circular 73-3 with respect to cost sharing on federally-sponsored research to cooperative agreements when general guidance is needed. This subsection is not mandatory but may be applied to grants and cooperative agreements with profit making organizations, individuals, and foreign organizations when general guidance is needed.

2. *Definitions.*

a. Project costs. Project costs are all allowable costs (as set forth in the applicable Federal cost principles) incurred by a recipient and the value of the in-kind contributions made by the recipient or third parties in accomplishing the objectives of the grant or other agreement during the project or program period.

b. Cost sharing and matching. In general, cost sharing and matching represent that portion of project costs not borne by the Federal Government.

c. Cash contributions. Cash contributions represent the recipient's cash outlay for either direct and/or indirect costs, including the outlay of money contributed to the recipient by non-Federal third parties for the grant costs.

d. In-kind contributions. In-kind contributions represent the value of noncash contributions provided by the recipient and non-Federal third parties. Only when authorized by Federal legislation, may property purchased with Federal funds be considered as the recipient's in-kind contribution. In-kind contributions may be in the form of charges for real property and non-expendable personal property, and the value of goods and services directly benefiting and specifically identifiable to the project or program.

3. *Guidelines for computation.* General guidelines for computing cost sharing or matching are as follows:

a. Cost sharing or matching may consist of:

(1) Charges incurred by the recipient as project costs. (Not all charges require cash outlays by the recipient during the project period; examples are depreciation and use charges for buildings and equipment.)

(2) Projects costs financed with cash contributed or donated to the recipient by other non-Federal public agencies and institutions, and private organizations and individuals, and

(3) Project costs represented by services and real or personal property, or use thereof, donated by other non-Federal public

agencies and institutions, and private organizations and individuals.

b. All contributions, both cash and in-kind, shall be accepted as part of the recipient's cost sharing and matching when such contributions meet all of the following criteria:

(1) Are verifiable from the recipient's records;

(2) Are not included as contributions for any other federally-assisted program;

(3) Are necessary and reasonable for proper and efficient accomplishment of project objectives;

(4) Are types of charges that would be allowable under the applicable cost principles;

(5) Are not paid by the Federal Government under another assistance agreement (unless the agreement is authorized by Federal law to be used for cost sharing or matching);

(6) Are provided for in the approved budget when required by the Federal agency; and

(7) Conform to other provisions of this subsection.

4. *Role of cost principles.* Values for recipient in-kind contributions will be established in accordance with the applicable cost principles.

5. *Procedures for computation.* Specific procedures for the recipients in establishing the value of in-kind contributions from non-Federal third parties are set forth below:

a. Valuation of volunteer services. Volunteer services may be furnished by professional and technical personnel, consultants, and other skilled and unskilled labor. Volunteer services may be counted as cost sharing or matching if the service is an integral and necessary part of an approved program.

(1) Rates for volunteer services. Rates for volunteers should be consistent with those paid for similar work in the recipient's organization. In those instances in which the required skills are not found in the recipient organization, rates should be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved.

(2) Volunteers employed by other organizations. When an organization other than the recipient furnishes the services of an employee, these services shall be valued at the employee's regular rate of pay (exclusive of fringe benefits and overhead costs) provided these services are in the same skill for which the employee is normally paid.

b. Valuation of donated, expendable personal property. Donated expendable personal property includes such items as expendable equipment, office supplies, laboratory supplies or workshop and classroom supplies. Value assessed to expendable personal property included in the cost or matching share should be reasonable and should not exceed the market value of the property at the time of the donation. Credit will not be given for costs which are borne by the government through overhead charges.

c. Valuation of donated, nonexpendable personal property, buildings, and land or use thereof.

(1) The method used for charging cost sharing or matching for donated nonexpendable personal property, buildings and land may differ according to the purpose of the grant or other agreement as follows:

(i) If the purpose of the grant or other agreement is to assist the recipient in the acquisition of equipment, buildings or land, the total value of the donated property may be claimed as cost sharing or matching.

(ii) If the purpose of the agreement is to support activities that require the use of equipment, buildings or land, depreciation or use charges for equipment and buildings may be made. The full value of equipment or other capital assets and fair rental charges for land may be allowed provided that the Federal agency has approved the charges.

(2) The value of donated property will be determined in accordance with the usual accounting policies of the recipient with the following qualifications:

(i) Land and buildings. The value of donated land and buildings may not exceed its fair market value, at the time of donation to the recipient as established by an independent appraiser (e.g., certified real property appraiser or GSA representatives) and certified by a responsible official of the recipient.

(ii) Nonexpendable personal property. The value of donated nonexpendable personal property shall not exceed the fair market value of equipment and property of the same age and condition at the time of donation.

(iii) Use of space. The value of donated space shall not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.

(iv) Loaned equipment. The value of loaned equipment shall not exceed its fair rental value.

6. *Records requirements.* The following requirements pertain to the recipient's supporting records for in-kind contributions from non-Federal third parties.

a. Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the recipient for its employees.

b. The basis for determining the valuation for personal services, material, equipment, buildings and land must be documented.

206 Conflicts of interest. [Reserved]

207 Grants and Cooperative Agreements to Individuals.

a. *Policy.* Grants and cooperative agreements may be awarded to institutions, organizations, and individuals. Although institutions and organizations may have available greater depth of financial and other resources with which to assure successful performance, meritorious proposals from responsible individuals and organizations should be viewed with equal interest. All recipients, however, whether individuals or organizations must satisfy the criteria for recipient responsibility as set forth in Section 703.

b. *Implementation of grants and cooperative agreements to individuals.* 1. *Indirect costs and expenditures.* Costs which are customarily categorized as indirect costs in organizations will be treated as direct costs by individuals. Individuals may not use ERDA funds for alterations or renovations of real or personal property, nor for the purchase of fixed or general purpose equipment unless specifically approved in the award. Otherwise, the expenditures policies applicable to grants and cooperative agreements with commercial institutions are applicable to awards made to individuals.

2. *Reporting.* Generally speaking an individual recipient will have the same reporting requirements as an organization as provided in the award.

3. *Equipment.* Unless provided in the award, the disposition of equipment acquired with ERDA funds must be determined by the ERDA Awarding Officer at the conclusion of ERDA's support of the project. Such disposition is usually by way of transfer to the Federal Government.

4. *Responsibility.* Although the individual is held entirely responsible for the award, personal indemnity bonds are not required. The Project Officer will be responsible for regular contact with the individual to ensure that the terms of the award are being met.

208 Cash Depositories.

a. *Purpose.* Paragraphs b. through e. in this section set forth standards prescribed by OMB Circular A–110, Attachment A and FMC 74–7, Attachment A governing the use of banks and other institutions as depositories of funds advanced under grants and cooperative agreements awarded to institutions of higher education, hospitals, other nonprofit organizations, and State and local governments. Paragraphs b. through e. also apply to grants and cooperative agreements with profit making organizations, individuals, and foreign organizations except that for these recipients, physical segregation of cash depositories for ERDA funds may be required to meet the project need for cash control and accountability of funds.

b. *Physical segregation and eligibility.* Except as provided in c., d, and e, ERDA will not:

1. Require physical segregation of cash depositories for ERDA funds which are provided to recipients;

2. Establish any eligibility requirements for cash depositories in which ERDA funds are deposited by recipients.

c. *Checks-paid basis letter of credit.* A separate bank account shall be used when payments under a letter of credit are made on a "checks-paid" basis in accordance with agreements entered into by a recipient, the Federal Government, and the banking institutions involved unless the recipient is a State or local government, then a separate bank account may be used. A checks-paid basis letter of credit is one under which funds are not drawn from the Treasury until the recipient's checks have been presented to its bank for payment.

d. Any moneys advanced to a recipient which are subject to the control or regulation of the United States or any of its officers, agents or employees' (public moneys as defined in Treasury Circular No. 176, as amended) must be deposited in a bank with Federal Deposit Insurance Corporation (FDIC) insurance coverage and the balance exceeding the FDIC coverage must be collaterally secured.

e. *Minority-owned banks.* Consistent with the national goal of expanding opportunities for minority business enterprises, recipients and subrecipients are encouraged to use minority banks (a bank which is owned by at least 50 percent minority group members).

209 Bonding and insurance.

a. *Purpose.* This section sets forth requirements prescribed by OMB Circular A–110, Attachment B and FMC 74–7, Attachment B regarding bonding and insurance requirements applicable to grants and cooperative agreements awarded to institutions of higher education, hospitals, other nonprofit organizations, and State and local governments. This section is not mandatory but may be applied in whole or part to grants and cooperative agreements with profit making organizations, individuals, and foreign organizations where useful. Except for the situation provided for in paragraph d., no other bonding and insurance requirements shall be imposed other than those normally required by the recipient.

b. *Construction and facility improvement.* The recipient of an ERDA grant which requires contracting for construction or facility improvement (including any ERDA grant which provides for alterations or renovations of real property) shall follow its own requirements and practices relating to bid guarantees, performance bonds, and payment bonds unless the construction contract or subcontract exceeds $100,000. For those con-

tracts or subcontracts exceeding $100,000, ERDA may accept the bonding policy and requirements of the recipient provided ERDA has made a determination that the Government's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

1. A bid guarantee from each bidder equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

2. A performance bond on the part of the contractor for 100 percent of the contract price. A performance bond is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under the contract.

3. A payment bond on the part of the contractor for 100 percent of the contract price. A payment bond is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

c. *Loan guarantee.* (When specifically authorized by law.) Where in connection with an ERDA grant, ERDA also guarantees the payment of money borrowed by the grantee, ERDA may, at its discretion, require adequate bonding and insurance if the bonding and insurance requirements of the recipient are not deemed adequate to protect the interests of the Federal Government.

d. *Fidelity bond coverage.* ERDA may require adequate fidelity bond coverage where the recipient, excluding State or local governments, has no coverage and the bond is needed to protect the Government's interest.

e. *Acceptable sureties.* Where bonds are required in the situations described above, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties (31 CFR 223).

210 Standards for financial management systems.

a. *Purpose.* This section sets forth standards prescribed by OMB Circular A-110, Attachment F and FMC 74-7, Attachment B regarding financial management systems applicable to institutions of higher education, hospitals, other nonprofit organizations, and State and local governments which receive grants or cooperative agreements. ERDA will not impose additional standards unless specifically provided for in this section. However, suggestions and assistance may be provided in establishing or improving finanical management systems when such assistance is needed or requested. This section is not mandatory but normally should be applied to profit making organizations, individuals, and foreign organizations which receive ERDA funds through grants or cooperative agreements.

b. *Standards.* Recipient's financial management systems shall provide for:

1. Accurate, current and complete disclosure of the financial results of each federally sponsored project or program in accordance with the Federal reporting requirements set forth in Section 805. If ERDA requires reporting on an accrual basis, the recipients shall not be required to establish an accrual accounting system but shall (substitute "should" for "shall" if the recipient is a State or local government) develop such accrual data for its reports on the basis of an analysis of the documentation on hand.

2. Records that identify adequately the source and application of funds for federally sponsored activities. These records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, and income.

3. Effective control over and accountability for all funds, property and other assets. Recipients shall adequate safeguard such assets and shall assure that they are used solely for authorized purposes.

4. Comparison of actual outlays with budgeted amounts for each grant or cooperative agreement. Whenever appropriate or required by ERDA financial information should be related to performance and unit cost data.

5. Procedures to minimize the time elapsing between the transfer of funds from the U.S. Treasury and the disbursement by the recipient, whenever funds are advanced by the Federal Government. When advances are made by a letter-of-credit method, the recipient shall make drawdowns as close as possible to the time of making disbursements.

6. Procedures for determining the reasonableness, allowability and allocability of costs in accordance with provisions of the applicable Federal cost principles and the terms of the grant or cooperative agreement.

7. Accounting records that are supported by source documentation.

8. *Examination of records.*

(a) Applicable to all recipients including profit making organizations and individuals except State and local governments.

(1) *Audits.* Examinations in the form of audits or internal audits. Such audits shall be made by qualified individuals who are sufficiently independent of those who authorize the expenditure of Federal funds, to produce unbiased opinions, conclusions or judgments. They shall meet the independence criteria along the lines of Chapter 3, Part 3 of the U.S. General Accounting Office publication, Standards for Audit of Governmental Organizations, Programs, Activities and Functions. These examinations are intended to ascertain the effectiveness of the financial management systems and internal procedures that have been established to meet the terms and conditions of the agreements. It is not intended that each agreement awarded to the recipient be examined. Generally, examinations should be conducted on an organizationwide basis to test the fiscal integrity of financial transactions, as well as compliance with the terms and conditions of the Federal grants and other agreements. Such tests would include an appropriate sampling of Federal agreements. Examinations will be conducted with reasonable frequency, on a continuing basis or at scheduled intervals, usually annually, but not less frequently than every two years. The frequency of these examinations shall depend upon the nature, size and the complexity of the activity. These examinations do not relieve ERDA of its audit responsibilities, but may affect the frequency and scope of such audits.

(2) *Examination of records.* Pursuant to 42 USC 2206 and Section 306 of P.L. 93-438, the Administrator of ERDA and the Comptroller General of the United States, or any of their duly authorized representatives shall have access to any books, documents, papers, and records of the recipient and any recipients under assistance awards to make audits, examinations, excerpts and transcripts at all reasonable times during the life of the award and during the required record retention period.

(b) Applicable to State and local governments only.

(1) *Audit.* Audits should be made by the recipient or at the recipient's direction to determine, at a minimum, the fiscal integrity of financial transactions and reports, and the compliance with laws, regulations, and administrative requirements. The recipient will schedule such audits with reasonable frequency, usually annually, but not less frequently than once every two years, considering the nature, size, and complexity of the activity.

(2) *Examination of records.* The policy in b.8.(a)(2) also applied to State and local governments.

9. Systematic method to assure timely and appropriate resolution of audit findings and recommendations.

c. *Subrecipients.* Primary recipients shall require subrecipients (institutions of higher education, hospitals, and other nonprofit organizations, State and local governments, excluding commercial organizations and individuals) to adopt the standards in paragraph b. except for reporting forms and frequencies referred to in b.1., and letter of credit procedure in b.5.

211 Competition.

a. *Policy.* It is ERDA policy to maximize the opportunities for proposers and potential recipients to compete or otherwise be considered for award of ERDA funds through grants and coopertaive agreements. The policy objective is to maximize opportunities for new proposers and new ideas to obtain awards by minimizing the precommitment of available and future funds to projects which are continuously renewed. To the extent that funds are allocated to continuously renewed projects, the competitive opportunity for new projects is diminished.

b. *Definitions.* Competition is the opportunity to propose and compete whether under a solicited or an unsolicited method, and be selected for an award of ERDA funds on the basis of comparative merit. To the extent possible, competition should be stimulated through the use of competitive solicitations. Competition excludes supplements which provide for completion of discrete projects and continuation actions where ERDA is funding a prior commitment.

c. *Implementation for grants.*

1. Grants for discrete projects should be supplemented only for the purpose of completing the work as proposed for the initial grant. Supplements should not exceed six months beyond the initial grants period or 50 percent of the amount of funding for the existing budget period. Supplements beyond six months should be requested in the form of a renewal proposal which will be considered in competition equally with all other proposals within a program area.

2. Grants for continuing projects should be awarded only where the shorter term discrete grants are not adequate to meet project requirements. No continuing grant may exceed a total period of five years. ERDA support beyond the fifth year may only be provided in the form of a renewal grant award, subsequent to a rigorous program evaluation which concludes that the grant results are promising and that there are not other more promising proposals available to accomplish the same or similar purpose.

d. *Implementation for cooperative agreements.* The restrictions placed on discrete and continuing grants in c. do not apply to cooperative agreements.

e. *Proposals from educational institutions in competition with commercial firms and other organizations.* All potential recipients, regardless of type are responsible for making proposal submission decisions consistent with their overall interests and responsibilities. See 404 a.

f. *Restrictions on competition.*

1. *Competitive solicitations.* Solicitation of proposals using the assistance solicitations referenced in Section 301 c.1. and 2. May be restricted to certain categories of recipients such as small business, or institutions of higher education when there is adequate

statutory basis in ERDA's or other legislation or a sound basis established in published policy to justify such a restriction. Proposed restrictions as described above shall be reviewed by ERDA Office of General Counsel for legal sufficiency prior to issuance of the solicitation.

2. *Noncompetitive solicitations.* A noncompetitive solicitation is one where only one potential recipient is given the opportunity to submit a proposal and be considered for award of ERDA funds. This situation is under most circumstances inconsistent with the policy in a. and should be the rare exception. However, there may be unusual circumstances or reasons which would justify a noncompetitive solicitation.

(a) Reasons. The most obvious reason is that only one recipient is available to perform the intended effort. Availability may be narrowed because of geographical location; there is a certain State, interstate, or local government unit or nonprofit organization in a region or other area comprised of representatives of such government units which are the only organization(s) for which it would be appropriate to provide assistance to accomplish ERDA's mission; support to one recipient is appropriate in order to meet the requirements of a single series of actions in carrying out an experiment or test; or the like.

(b) Test. The adequacy of the reasons offered to justify a noncompetitive solicitation must be tested for consistency with the policy in a. and the objective of maintaining an open and fair system of making awards.

(c) Justification. A justification for noncompetitive solicitation must be prepared which sets forth the reasons for restricting the opportunity to be considered for award to one recipient, and shows why the noncompetitive solicitation complies with the policies in a. and 2(b). The justification should be signed by the Head of the Program Office and reviewed by Office of General Counsel for legal sufficiency prior to issuance of the noncompetitive solicitation.

212 Nondiscrimination in federally assisted ERDA programs—civil rights.

a. *Policy.* 1. *Applicability.* This section applies to grants and cooperative agreements issued pursuant to this Manual where the recipient receiving funds from ERDA is subject to the Civil Rights Act of 1964 (Pub. L. 88-352), and the implemeting ERDA regulations in 10 CFR Chapter III, Part 704, and ERDA Manual Chapter 0206. This section does not apply to any Federal financial assistance by way of insurance or guaranty contracts; assistance awards made prior to December 31, 1964; any assistance to any individual who is the ultimate beneficiary under an assistance award or program; or any employment practice, under any such program, if any employer, employment agency, or labor organization except where the primary objective of the financial assistance is to provide employment.

2. *Prohibition.* No person in the United States shall on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subject to discrimination under any grant or cooperative agreement award where the recipient receives funds from ERDA.

3. *Federally assisted construction contracts.* The provisions of Executive Order No. 11246 apply to Federally assisted construction contracts which ERDA funds. See Section 621c.6.(a)(2) for definition of Federally assisted construction contracts. Awards subject to Executive Order No. 11246 are also subject to the sex discrimination provisions of the Order and its implementing regulations.

b. *Implementation.* 1. The ERDA Director, Office of Equal Opportunity is responsible for the implementation of 10 CFR Chapter III, Part 704. All questions regarding such implementation should be directed to the ERDA, Director, Office of Equal Opportunity, Washingtn, D.C. 20545.

2. No award involving funds may be made under this Manual until prospective recipients except individuals have submitted a signed Assurance of Compliance as presented in paragraph c. to the Awarding Officer. Following award, the Awarding Officer will send the original signed Assurance to the Director, Office of Equal Opportunty for filing. Prospective recipients are required to submit the Assurance once or at intervals specified by the Director, Office of Equal Opportunity. Subsequent to the initial submission, Awarding Officers shall verify the prior submission of the Assurance with the Director, Office of Equal Employment Opportunity prior to making an award.

c. *Form for Assurance of Compliance.*

ASSURANCE OF COMPLIANCE WITH THE ENERGY RESEARCH AND DEVELOPMENT REGULATION TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

_____ (hereinafter called the (name of applicant)
"Applicant") hereby agrees that it will comply with title VI of the Civil Rights Act of 1964 (Pub. L. 88-352) and all requirements imposed by or pursuant to the regulation of the Energy Research and Development Administration (10 CFR Chapter III, Part 704) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Regulation, no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from the Energy Research and Development Administration; and hereby gives assurance that it will immediately take any measures necessary to effecutate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the applicant by the Energy Research and Development Administration, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the Federal financial assistance is extended to it by the Energy Research and Development Administration.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts, or other Federal financial assistance extended after the date hereof to the Applicant by the Energy Research and Development Administration, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or person whoe ignature appear below are authorized to sign this assurance on behalf of the Applicant.

Dated: _____

_____
Applicant.

By _____,
President, Chairman of Board, or comparable authorized official.

_____
_____
(Applicant's mailing address)

213 Sex discrimination.

a. *Policy.* All awards issued pursuant to this Manual are subject to title IV of the Energy Reorganization Act of 1974, Public Law 93-438 which reads as follows:

SEC. 401. No person shall on the ground of sex be excluded from participation in, be denied a license under, be denied the benefits of, or be subjected to discrimination under any program or activity carried on or receiving Federal assistance under any title of this Act. This provision will be enforced through agency provisions and rules similar to those already established, with respect to racial and other discrimination, under title VI of the Civil Rights Act of 1964. However, this remedy is not exclusive and will not prejudice or cut off any other legal remedies available to a discriminatee.

b. *Implementation.* The substance of the foregoing provision is included in prescribed award instruments.

214 Nondiscrimination against handicapped.

a. *Policy.* All awards issued pursuant to this Manual where the recipient receives funds from ERDA are subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112 which requires that:

No otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

b. *Implementation.* Pending publication of implementing guidelines from the Department of Health, Education, and Welfare, the substance of the foregoing provisions is included in prescribed award instruments.

215 Patent rights, copyrights, technical data.

a. Grants and cooperative agreements issued pursuant to this Manual are subject to the patents, data, and copyrights regulation set forth in 41 CFR 9-9. Deviations from the provisions of 41 CFR 9-9 or from the Patent, Copyright, and Technical Data Provisions of this Manual shall be obtained from Patent Counsel in accordance with 41 CFR 9-9.107-4.

b. Patent rights (short form) applicable to educational, nonprofit institutions, State and local governments, and individuals.

(a) *Definitions.* (1) "Subject Invention" means any invention or discovery of the grantee conceived or first actually reduced to practice in the course of or under this grant, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented, under the Patent Laws of the United States of America or any foreign country.

(2) "Patent Counsel" means the ERDA Patent Counsel assistant the procuring or grant activity.

(b) *Invention disclosures and reports.* (1) The grantee shall furnish the Grants Officer or Patent Counsel:

(i) A written report contained full and complete technical information concerning each Subject Invention within 6 months after conception or first actual reduction to practice whichever occurs first in the course of or under this grant, but in any event prior to any on sale, public use, or public disclosure of such invention known to the Grantee. The report shall identify the grant and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and to the extent known, the physical, chemical, biological, or electrical characteristics of the invention;

(ii) Upon request, but not more than annually, interim reports on an ERDA-approved form listing Subject Inventions for that period and certifying that all Subject Inventions have been disclosed or that there were no such inventions; and

(iii) A final report on an ERDA-approved form within 3 months after completion of the grant work listing all Subject Inventions have been disclosed or that there were no such inventions.

(2) The grantee agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to the grant.

(c) *Allocation of principal rights.* (1) *Assignment to the Government.* The grantee agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention, except to the extent that rights are retained by the grantee under paragraphs (c)(2) and (d) of this clause.

(2) *Greater rights determination.* The grantee or the employee-inventor with authorization of the grantee may request greater rights than the nonexclusive license and the right to request foreign patent rights provided in paragraph (d) of this clause on identified inventions in accordance with the procedures and criteria of 41 CFR 9-9.109-6. A request for a determination of whether the grantee or the employee-inventor is entitled to retain such greater rights must be submitted to the Administration at the time of the first disclosure of the invention pursuant to paragraph (b)(1) of this clause or not later than 3 months thereafter or such longer period as may be authorized by the Grants Officer or Patent Counsel for good cause shown in writing by the grantee. The information to be submitted for a greater rights determination is specified in 41 CFR 9-9.109-6(e).

(d) *Minimum rights to the grants.* The grantee reserves a revocable, nonexclusive, paid-up license in each patent application filed in any country on a Subject Invention and any resulting patent in which the Government acquires title. Revocation shall be in accordance with the procedure of paragraph (c)(2) and (3) of the clause in 41 CFR 9-9.107(a). The grantee also has the right to request foreign rights in accordance with the procedures of paragraph (c)(4) of the clause in 41 CFR 9-9.107-5(a).

(e) *Employee and subcontractor agreements.* Unless otherwise authorized by the Grants Officer the grantee shall:

(1) Obtain patent agreements to effectuate the provisions of the Patent Rights clause from all persons in its employ who perform any part of the work under this grant except nontechnical personnel, such as clerical employees and manual laborers.

(2) Unless otherwise authorized or directed by the Grants Officer in accordance with 41 CFR 9-9.107-4(f), the grantee shall include the Patent Rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6, as appropriate, modified to identify the parties in any subcontract hereunder; and

(3) Promptly notify the Grants Officer in writing upon the award of any subcontract containing a Patent Right clause by identifying the subcontractor, the work to be performed under the subcontract, and the dates of award, and estimated completion. Upon the request of the Grants Officer the grantee shall furnish a copy of the subcontract to such requestor.

(f) *Atomic energy.* No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the grantee or its employees with respect to any invention or discovery made or conceived in the course of or under this grant.

(1) Except as otherwise authorized in writing by the Grants Officer, the grantee will obtain patent agreements to effectuate the provisions of paragraph (f)(1) of this clause from all persons who perform any part of the work under this grant, except such clerical and manual labor personnel as will not have access to technical data.

c. *Patent rights clause (long form).* The Patent Rights clause (long form) in 41 CFR 9-9.107-5 is applicable to grants and cooperative agreements with profit making organizations and individuals where such grants and cooperative agreements involve research, development, or demonstration work and in any grant or cooperative agreement where a waiver of patent rights is requested. The clause in 41 CFR 9-9.107-5 is incorporated herein by reference.

d. *Rights in technical data (long form).* The clause in 41 CFR 9-9.202-3(e) applies to grants and cooperative agreements with profit making organizations where such grants or agreements call for research, development or demonstration work. When this clause is used the "Additional Technical Data Requirements" clause of 41 CFR 9-9.202-3(c) shall normally also be used. A short form version of the above Rights in Technical Data clause may be used in grants or cooperative agreements with educational, nonprofit institutions, State and local governments, and individuals where such grants or agreements involve research, development, or demonstration work.

e. *Authorization and consent.* This clause in 41 CFR 9-9.102-2 shall be used in all grants and cooperative agreements calling for research development or demonstration work.

f. *Notice and assistance.* This clause in 41 CFR 9-9.104 shall be used in all grants and cooperative agreements in excess of $10,000 for supplies, services, construction, research, development, or demonstration work provided, that the clause shall not be included in grants or cooperative agreements:

(a) Where both performance and delivery are to be outside the United States, its possessions, or Puerto Rico, unless the contract indicates that the supplies are ultimately to be shipped into the United States, its possessions, or Puerto Rico; or

(b) Of $10,000 or less (as a matter of administrative convenience, however, the clause need not be deleted when it is part of a standard form being used for such grants or cooperative agreements since it is self-deleting.

g. *Classified inventions.* Unauthorized disclosure of classified subject matter, whether in a patent application or resulting from the issuance of a patent, may be a violation of not only the Atomic Energy Act of 1954, as amended, and other laws relating to espionage and national security, but also provisions pertaining to disclosure of information incorporated in the grant or cooperative agreement. Accordingly, the clause of 41 CFR 9-9.106 shall be included in every grant or cooperative agreement which covers or is likely to cover classified subject matter.

h. *Reporting of royalties.* In order that ERDA may be informed regarding royalty payments to be made by a recipient in connection with any assistance, construction, or operation where the amount of the royalty payments is reflected in the award budget, or is to be reimbursed by the Government, the negotiator shall (a) obtain from the offeror information concerning the royalty payments expected to be made in connection with the proposed assistance, construction, or operation, together with the names of the licensors and either the patent numbers involved or such other information as will permit identification of the patents and patent applications as well as the basis on which the royalties are to be paid, and (b) obtain from the offeror a certification that the award budget includes no amount representing the payment of any royalty by the offeror directly to others in connection with the performance of the award, or (c) insert in the grant or cooperative agreement the clause set forth in 41 CFR 9-9.110.

216 Clean air—clean water.

a. *Purpose.* This section prescribes policies and procedures regarding the requirements of the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub. L. 91-604, December 31, 1970), the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500, October 18, 1972), Executive Order 11738, September 10, 1973, and the related regulations of the Environmental Protection Agency (EPA) (40 CFR, Part 15).

b. *Policy.* 1. Executive Order 11738 provides in Section 1 that: "It is policy of the Federal Government to improve and enhance environmental quality. In furtherance of that policy, the program prescribed in this Order is instituted to assure that each Federal agency * * * empowered to extend Federal assistance by way of grant, loan, or contract shall undertake such * * * assistance activities in such a manner that will result in effective enforcement of the Clean Air Act * * *' and 'Water Act' * * *".

2. Except as provided in c., ERDA shall not enter into, renew, or extend any grant or cooperative agreeemnt with a recipient proposing to use in the performance thereof a facility which is listed by the Director, Office of Federal Activities, EPA, pursuant to 40 CFR 15.20, as a violating facility under either the Air Act or Water Act. Current listing information may be obtained from EPA on area code 202-755-8731.

c. *Exemptions.* 1. Prime awards and subawards under $100,000 in any one year.

2. When the facilities to be used are outside the United States.

However, no award may be made, notwithstanding the dollar value if the facility to be used is listed on the EPA List of Violating Facilities on the basis of a conviction either under the Air Act or Water Act. The Administrator of ERDA, where he determines that the paramount interest of the United States so requires, may exempt from the requirements of this section any individual or class of awards for one year.

d. *Award provisions.* The provisions in Appendix O to this Manual are applicable to awards where either funds or property interest in excess of $100,000 is provided within the United States. If no funds or property are provided by ERDA, or if the funds or property provided are $100,000 or less, then the foregoing Acts and the provisions in Appendix O do not apply.

217 National security.

a. *General.* Normally ERDA grants and cooperative agreements do not involve classi-

fied information. However, if information is sought or developed by the recipient which should be classified in the interests of national security, the ERDA Awarding Officer should be notified immediately. If work with classified information is advantageous as decided by the ERDA Project Officer, necessary security arrangements can be made.

b. *Implementation.* All security matters are subject to the applicable portions of the ERDA Manual. All questions concerning security or classified information shall be referred to the Division of Safeguards and Security, HQ or to cognizant Safeguards and Security organizations in ERDA-Field.

218 Waiver of "single" State agency requirements.

a. *Purpose.* This section implements FMC 74-7, Attachment A and is applicable to State and local governments only.

b. *Handling.* Requests to ERDA from the Governors, or other duly constituted State authorities, for waiver of the "single" State agency requirements in accordance with Section 204 of the Intergovernmental Cooperation Act of 1968 should be given expeditious handling and, whenever possible, an affirmative response should be made to such requests.

c. *Refusals.* When it is necessary to refuse a request for waiver of the "single" State agency requirements under Section 204 of the Act, ERDA will so advise the General Services Administration prior to informing the State that the request cannot be granted. Such advice should indicate the reasons for denial of the request.

219 Protection of human subjects.

The ERDA policy regarding protection of human subjects was published in the FEDERAL REGISTER on November 30, 1976, Volume 41, No. 231.

220 Small and minority business participation.

a. *Policy.* The policy for ERDA regarding small businesses was clearly set forth in the Energy Reorganization Act of 1974 Pub. L. 93-438 Section 2(d) where "The Congress declared that it is in the public interest and the policy of Congress that small business concerns be given a reasonable opportunity to participate, insofar as is possible, fairly and equitably in *grants*, contracts, purchases, and other Federal activities relating to research, development, and demonstration of sources of energy efficiency, and utilization and conservation of energy." (Italic added for emphasis.)

b. *Implementation.* 1. *ERDA employees.* In recognition of the foregoing declaration in a., it is ERDA's desire to encourage the maximum feasible involvement of small and minority businesses in ERDA grant and cooperative agreement awards. Small and minority businesses should be given every consideration in selection and award of grants and cooperative agreements.

2. *Assistance solicitations.* The methods of soliciting proposals referenced in Section 301 c.1., 2., and 3. may provide for small business set-asides or preference to implement the policy in a. No preference or set-aside may be established in the absence of a statutory basis or a basis established in published public policy. See Section 211, Competition.

3. *Recipients.* Recipients should accomplish the maximum amount of subcontracting to small and minority business concerns that is reasonable, appropriate, and consistent with the efficient performance of the awards received from ERDA.

c. *Definitions.* 1. *Small business concern.* Unless otherwise designated by the ERDA Senior Small Business Advisor, a small business concern for the purpose of awarding assistance through ERDA grants and cooperative agreements is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is submitting requests for ERDA assistance, and can further qualify under the procurement criteria concerning number of employees, average annual receipts, or other criteria, as prescribed by the Small Business Administration (see Code of Federal Regulations, Title 13, Part 121, as amended, which contains detailed industry definitions and related procedures).

2. *Minority business enterprise.* Is a business, at least 50 percent of which is owned by minority group members or, in case of publicly owned businesses, at least 51 percent of the stock of which is owned by minority group members. For purposes of this definition, minority group members are Black-Americans, Spanishing-speaking American persons, American Orientals, American-Indians, American-Eskimos, and American Aleuts.

3. *Set-aside.* Assistance solicitation restricted exclusively to small business concerns.

221 Buy American Act.

Grants and cooperative agreements which provide for payment of funds to the recipient any part of which may be used to acquire articles, materials, and supplies to make an end product which is to be delivered to ERDA for its use, shall include the Buy American Act clause as provided in Appendix O to this Manual. If title to all end products is held by the recipient this clause shall not be used. Under such circumstances a clause expressing a preference for domestic articles, materials, and supplies may be included instead where appropriate.

CHAPTER 3—IDENTIFICATION AND PUBLICATION OF ERDA PROGRAMS

Sec.

300 General.

301 Methods of publicizing ERDA programs and obtaining proposals.

302 Unsolicited proposal policy for assistance awards.

303 Joint Funding Simplification Act.

300 General.

ERDA, as contrasted to other Executive Branch components, has very few Congressionally prescribed grant programs where Congress specifically legislates programs, purposes, types of recipients, and funding amounts to be implemented exclusively through grants. ERDA's legislation generally authorizes energy programs without legislative prescription as to the use of instruments or type of grantee for a particular program. This chapter describes the several methods ERDA uses to publicize and obtain proposals its programs.

301 Methods of publicizing ERDA programs and obtaining proposals.

a. *General.* This section describes the several methods of publicizing ERDA programs which may result in the award of grants or cooperative agreements. There is a large variety of methods because of the large variety of ERDA programs which may utilize grants or cooperative agreements.

b. *Catalog of Federal Domestic Assistance.* The Catalog of Federal Domestic Assistance, which is compiled and published annually by the Office of Management and Budget, lists ERDA programs in the 24.000 series.

c. *Solicited methods.* A solicited method is a formal written invitation by ERDA to submit proposals for a particular effort or objective to ERDA by a particular common due date. The availability of solicitations may be advertised in the Commerce Business Daily for dissemination upon request. Copies of solicitations which may be of particular interest to institutions of higher education should be forwarded upon release by the awarding officer to the Headquarters Office of University Programs which will assist in disseminating copies to the university community. Note the presolicitation approval requirement in Section 602e. if it is expected that a grant or cooperative agreement award may exceed $5,000,000.

1. *Program Opportunity Notices (PON).* (a) PONs are issued to solicit of proposals to accelerate the demonstration of the technical, operational, economic and commercial feasibility and environmental acceptability of particular energy technologies, systems, subsystems and components. Grants and cooperative agreements may be awarded where appropriate for proposals submitted in response to a PON, unless the PON prescribes an award instrument other than grants or cooperative agreements in advance.

(b) The applicable policy regarding the use, content, evaluation and selection of proposals is presently issued as ERDA Procurement Temporary Regulation No. 10 dated June 27, 1975. (ERDA-PR 9-4.57)

2. *Program Research and Development Announcements (PRDA).* (a) PRDAs permit ERDA program offices to solicit proposals in those instances where a specific need or solution is not sufficiently definable to permit a traditional focused, competitive procurement. The primary objective of the solicitation is to receive proposals which include not only competing methods of doing particular work but also new ideas or approaches which should be undertaken to further national energy research and development.

(b) The applicable policy regarding the use, content, evaluation and selection of proposals is in ERDA Procurement Regulation Temporary Regulation No. 16 dated March 8, 1976. (ERDA-PR 9-4.58)

3. *Program announcements.* A program announcement is functionally similar to a PRDA in paragraph 2. above except that it is more definitive and specific as to the types of projects the program wishes to fund, and may be for any type of project not just research and development. Competition among proposals is more focused, and special evaluation and selection procedures are identified and used. Although program announcements are not technically subject to the PRDA Regulation, they should be fashioned after the PRDA as described in ERDA-PR Temporary Regulation No. 16 and at a minimum should reflect the particular provisions of 9-4.5804-3, Information to be included in Program Announcements; 9-4.5804-4, Information to be provided in proposals; and 9-4.5806, Method and criteria for evaluation and selection. Program terms and conditions, including the desired budget format, which may be needed by program offices in addition to the administrative and statutory provisions in the grant instrument, should be included in the program announcement to permit incorporation by reference in the award.

4. *Request for proposal (RFP) and request for quotation (RFQ).* Requests for proposals or quotations are normally procurement methods of formally soliciting proposals and quotations for the purpose of awarding procurement contracts. When it is determined prior to solicitation that a grant or cooperative agreement is the appropriate award instrument, preference should be given to the use of soliciting methods specified in c.1., 2, and 3.

5. *Required notice of right to request patent waiver.* Offerors and prospective recipients are to be provided with notice of and the opportunity to request, in advance of award, a waiver of all or any part of the rights of the United States with respect to subject inventions. In no event will the fact that an offeror has requested such a waiver be a consideration in the evaluation of his

offer or the determination of its acceptability. Accordingly, the following notice will be given to all prospective recipients and will be inserted in all solicitations which may result in grants or cooperative agreements calling for research, development or demonstration:

"Offerors and prospective recipients in accordance with applicable statutes and ERDA Regulations (41 CFR 9-9.109-6) have the right to request in advance of or within 30 days after the effective date of award a waiver of all or any part of the rights of the United States in subject inventions."

d. *Unsolicited proposals.* An unsolicited proposal is where ERDA does not issue a formal written invitation to submit proposals by a specific common due date. The submission on an unsolicited proposal is at the initiative of the proposer rather than at ERDA's invitation. Note the preaward requirement for approval in Section 602e., if a grant or cooperative agreement award amount exceeds $5,000,000.

1. If an offeror desires to submit an unsolicited proposal for a demonstration, the proposal should be prepared in accordance with ERDA Procurement Regulation Temporary Regulation No. 10.

2. Unsolicited proposal policy applicable to award of assistance. See Section 302.

3. Unsolicited proposals from educational institutions. A Guide for the Submission of Research Proposals from Educational Institutions is available from the: Office of University Programs, U.S. Energy Research and Development Administration, Washington, DC 20545. In the event of any inconsistency, the provisions of this Manual govern over the Guide.

4. Unsolicited proposals from other than educational institutions. A Guide for the Submission of Research and Development Proposals by Individuals and Organizations other than Educational Institutions is available from: U.S. Energy Research and Development Administration, Division of Procurement, C-167, Proposal Coordinated Section, Washington, DC 20545. In the event of any inconsistency, the provisions of this Manual govern over the Guide.

5. *Notice of Program Interest (NPI).* (a) NPIs are issued to assist potential interested proposers by providing information about ERDA's interest in obtaining innovative and meritorious methods, approaches and ideas applicable to specific problem areas or program objectives involving energy and related technology utilization. NPIs are not formal solicitations but communication devices which inform and help potential interested proposers focus on areas where submission of unsolicited proposals may be mutually beneficial to ERDA and the proposer.

(b) The applicable policy is in ERDA Procurement Regulation, Temporary Regulation No. 21, § 9-4.5203-1 as published in the FEDERAL REGISTER on July 23, 1976.

302 Unsolicited proposal policy for assistance awards.

a. *Policy.* ERDA will strive to maintain the highest standards of public accountability by making competent, objective, impartial judgments as to the merits of proposals submitted, and by documenting the rationale for the selection decisions made.

b. *Scope.* Unsolicited proposals from any type of proposing organization which are being considered in accordance with the criteria in Section 602 for award of assistance through a grant or cooperative agreement are within the scope of this policy. Unsolicited proposals which are being considered for procurement award through instruments prescribed by the Federal and ERDA Procurement Regulations are outside the scope of this policy.

c. *Definitions.* 1. *Unsolicited proposal.* A written request for ERDA support to perform a project, which is submitted solely on the initiative of the proposer, not in response to a written or verbal request made by ERDA. The term may include both requests for support of a new project and requests for additional support of a previously funded project (renewals).

2. *Assistance.* See Section 108.

3. *Renewal.* See Sections 902 and 903.

d. *Advance consultation.* The project officer will, when feasible, be available for technical discussions with potential proposers. Advance discussions shall be limited to clarification of broad areas of technical concern to ERDA.

The project officer will not indicate or imply in discussions with the potential proposer that a proposal will result in an award. Nothing is to be suggested to encourage or authorize the proposer to perform any work at ERDA expense in anticipation of support of an award.

e. *Submission of unsolicited proposals.* See Section 301d.

f. *Receipt and review.* 1. *Receipt.* Receipt of unsolicited proposals will be acknowledged promptly by the responsible receiving office and then forwarded expeditiously to potentially interested program offices. Each unsolicited proposal that is circulated for a comprehensive evaluation shall have a legend attached or imprinted on it by the responsible receiving office identifying it as an unsolicited proposal, and stating that it shall be used only for purposes of evaluation.

2. *Review.* The responsible program official or designee shall assign a project officer and such other personnel as necessary to evaluate the proposal fairly and objectively. In some instances, the responsible program official may find it advantageous to subject the proposal to external rather than internal evaluation, such as peer group reviews.

g. *Evaluation.* 1. *Sequence.* The unsolicited proposal evaluation sequence is organized around the making of three major program decisions as to whether: the proposal has technical merit, funds are available, and whether acceptance of the unsolicited proposal can be justified. An award may result only if there are three affirmative decisions.

2. *Responsibility.* The responsibility for making the judgments and decisions in the evaluation sequence rests with the ERDA program office which makes the decision(s).

3. *Factors.* An unsolicited proposal will first be evaluated to develop a program opinion as to whether the unsolicited proposal has technical merit or program value. The following factors should be considered in forming the opinion:

(a) The anticipated, research, development, and application objectives to be achieved by the activities or facilities proposed, including the probability of achieving the stated objective;

(b) The capability, related experience, facilities, or techniques which the proposer possesses and offers, and which are considered to be integral factors for achieving the objectives of the proposal;

(c) The qualifications, capabilities, and experiences of the proposed investigator, team leader, or key personnel, who are considered to be critical in achieving the objectives of the proposal;

(d) How the proposal differs from current work in the same subject area, and the significance of this difference.

If the proposal does not offer sufficient technical merit or program value, or if funds are not available, the proposal will be returned to the submitter in accordance with paragraph h.

h. *Non-support of proposal.* The program officer prepares:

1. A written statement setting forth the basis for rejection of the unsolicited proposal, submits one copy to the responsible program official and retains one copy in the permanent file.

2. A letter to the submitter, for the signature of the responsible program official or designee, with one copy to the responsible receiving office, setting forth the basis for rejection of the proposal but including, if known, the names of other agencies that might have an interest in the proposed effort.

i. *Support and justification for acceptance.* An unsolicited proposal may be accepted if, in the judgment of the ERDA program office, such support is appropriate to accomplish a public purpose of support or stimulation authorized by ERDA's legislation. The justification will provide the rationale for the decision to award support. The following list, which is not all inclusive, illustrates the kinds of factors which may be considered and used as a basis for accepting an unsolicited proposal.

1. The potential contribution which the proposed work is expected to make to ERDA's specific mission, if supported at this time;

2. The economic, environmental, and societal significance which a successful demonstration may have for the national fuels and energy system;

3. The relationship of the proposal to the criteria of priority set forth as follows:

(a) The urgency of public need for the potential results of the research, development, or demonstration effort is high, and it is unlikely that similar results would be achieved in a timely manner in the absence of Federal assistance;

(b) The potential opportunities for non-Federal interests to recapture the investment in the undertaking through the normal commercial utilization of proprietary knowledge appear inadequate to encourage timely results;

(c) The extent of the problems treated and the objectives sought by the undertaking are national or widespread in their significance;

(d) There are limited opportunities to induce non-Federal support of the undertaking through regulatory actions, end use controls, tax and price incentives, public education, or other alternatives to direct Federal financial assistance.

(e) The degree of risk of loss investment inherent in the research is high, and the availability of risk capital to the non-Federal entities which might otherwise engage in the field of the research is inadequate for the timely development of the technology.

(f) The magnitude of the investment appears to exceed the financial capabilities of potential non-Federal participants in the research to support effective efforts.

4. The availability of non-Federal participants to construct and operate the facilities or perform the activities associated with the proposal and to contribute to the financing of the proposal;

5. The total estimated cost including the Federal investment and the probable time schedule;

6. The proposed participants and the proposed financial contributions of the Federal Government and of the non-Federal participants; and

7. The proposed cooperative arrangement, agreements among the participants, and form of management of the activities.

There is no prescribed format for the justification. The minimum requirements are that there be adequate basis for acceptance, the rationale for selection be written, approvals be obtained as required by paragraph j., and that a copy of the justification be attached to the procurement request ERDA Form-799 to be included in the grant or cooperative agreement award file. The

justification analysis may be included within documents required by Program Offices for project approval.

j. Approvals. The justification shall be reviewed and approved for support as follows:

1. Up to $5 million—Program Division Director.

2. Up to $10 million—Program Assistant Administrator.

3. Over $10 million—Concurred by Program Assistant Administrator, and Assistant Administrator for Administration, with approval by the Administrator.

303 Joint Funding Simplification Act

a. The Joint Funding Simplification Act of 1974 (42 U.S.C. 4251 et seq.) permits local governments and nonprofit organizations to combine State and Federal resources in support of projects of common interest.

b. OMB Circular A-111 has established procedures for the submission of applications for joint funding through State and area-wide clearinghouses and Federal Regional Councils. ERDA has been unable to identify any of its programs which are particularly suitable or appropriate for funding under the A-111 procedures. Prospective applicants should make preliminary inquiries to ERDA before initiating formal applications.

CHAPTER 4—SUBMISSION OF PROPOSALS

Sec.

400 [Reserved]
401 Who is eligible to submit proposals.
402 Where and when to submit proposals.
403 [Reserved]
404 Contents of proposal.
405 Coordination (OMB Circular A-95).
406 [Reserved]
407 [Reserved]
408 [Reserved]
409 Restrictive marking of proposals.

400 [Reserved]

401 Who is eligible to submit proposals.

a. *Domestic recipients.* Any domestic party, organization, institution, or other kind of entity may submit proposals and receive a grant or cooperative agreement awards in accordance with the provisions of this Manual. For individuals, domestic means citizens of the United States. For organizations, domestic means organized or otherwise incorporated under the laws of the United States and controlled by U.S. citizens.

b. *Foreign recipients.* Awards to foriegn recipients, whether to other than American citizens or foreign organizations, may be made after the cognizant ERDA Program Division Director has prepared a written determination that the research or other services offered by the foreign recipient are not available on a comparable basis from a domestic recipient.

c. *Facilities in violation of Air or Water Acts.* In order to be eligible for an award, potential recipients may not propose to use a facility listed on the Environmental Protection Agency List of Violating Facilities on the basis of a conviction either under the Air Act (42 U.S.C. 1857c-8(c)(1)) or the Water Act (33 U.S.C. 1319(c)).

402 Where and when to submit proposals.

a. *Solicited proposals.* Solicited proposals should be submitted to the address and at the time specified in the solicitation.

b. *Unsolicited proposals.* 1. Educational institutions, and certain other non-profit institutions that conduct educational and training activities, or whose facilities are used in joint programs with universities should submit unsolicited proposals to:

Office of University Programs, U.S. Energy Research and Development Administration, Washington, D.C. 20545.

2. Commercial firms, State and local governments, individuals, nonprofit research organizations, and all other prospective proposers except those identified in b.1. should submit unsolicited proposals to:

Director of Procurement, Proposal Coordinating Unit C-167, U.S. Energy Research and Development Administration, Washington, D.C. 20545.

The ERDA offices in b.1. and b.2. are responsible for recording receipt of the proposal, sending receipt notice to the proposer, and forwarding the proposal to an ERDA program office for evaluation.

3. *What to submit.* Unsolicited proposals may be submitted at any time.

c. *Proposal costs.* Proposers should be aware that ERDA is under no obligation or duty to make any award in response to any unsolicited proposal received whether the submission was with or without the benefit of preliminary discussions with ERDA. Further, ERDA is in no way liable for or in any other way obligated to pay the proposer for the costs of preparing an unsolicited proposal, apart from past award recovery of bid and proposal costs in the negotiated indirect rate, even if preliminary discussions with ERDA were held.

403 [Reserved.]

404 Contents of proposal.

a. *Recipient considerations prior to proposal submission.* 1. Before submitting a proposal to ERDA, the submitting organization should be satisfied that, among other things:

(a) The proposed project is consistent with the policies and goals of the submitting organization;

(b) The organization has, can make available, or obtain the necessary facilities, equipment, and services for the conduct of the project;

(c) The organization has, can make available, or obtain the necessary personnel for amounts of time estimated to be required;

(d) The organization has legal authority to accept grants and/or enter into cooperative agreements and the requisite policies, procedures, and personnel to ensure project stewardship of Federal funds;

(e) The total costs estimated to be required for the conduct of the project are reasonable and there is a plan for meeting such costs either from award funds or from some other source;

(f) The costs which ERDA is being asked to support are allowable (see Section 808) and the treatment of such costs as direct or indirect in the proposal budget is consistent with applicable Federal cost principles, with the policies of the submitting organization, and such State requirements as may be appropriate.

2. If the submitting organization does not already have an indirect cost base and rate recognized by ERDA or by a cognizant Federal Negotiating Agency, an indirect cost proposal should be separately submitted (see 808d, Establishment of Indirect Cost Rates).

3. The submitting organizations should furnish the Civil Rights Assurance described in Section 212.

b. *Proposal content.* See Section 301.

c. *State and local governments.* State and local governments may apply either by submitting the information requested in Section 301 or by using the Standard Forms prescribed in FMC 74-7, Attachment M.

405 Coordination (CMB Circular A-95).

a. *Current status.* OMB Circular No. A-95 furnishes guidance to Federal Agencies for cooperation with State and local governments on the evaluation, review, and coordination of Federal and federally assisted programs and projects. In the revision to A-95 dated January 2, 1976, no ERDA programs were included in the Attachment D which identified those Federal programs subject to the requirement of A-95. As ERDA programs develop, however, some may become subject to A-95 in the future.

b. *Standard federal assistance application form.* 1. This paragraph promulgates a standard form (SF 424) prescribed by OMB Circular A-110, Attachment M to be used by public and private institutions of higher education, public and private hospitals and other quasi-public and private nonprofit organizations as a face sheet for applications when applying for Federal grants or cooperative agreements under programs covered by Part I, Attachment A, OMB Circular No. A-95. ERDA offices are encouraged to extend the use of SF 424 to common programs with State and local governments where this form is now required by FMC 74-7.

2. The SF 424 may also be used, on an optional basis, to fulfill the requirements of OMB Circular A-95 for a notification of intent, from applicant to clearinghouses, that Federal assistance will be applied for. Local or State clearinghouse procedures will govern the use of the form for this purpose.

3. The standard form will also be used by ERDA to report to the clearinghouses on major actions taken on applications reviewed by clearinghouses in accordance with OMB Circular A-95, and to notify States of grants-in-aid awarded in accordance with Treasury Circular 1082.

4. This form is not applicable to profit making organizations and individuals, and to applications from all recipients for projects not covered by Part I, Attachment A, of OMB Circular No. A-95.

406 [Reserved]

407 [Reserved]

408 [Reserved]

409 Restrictive marking of proposals. See section 501.

CHAPTER 5—EVALUATION AND SELECTION OF POTENTIAL AWARDEES

Sec.

500 General.
501 Treatment of proposal information.
502 Evaluation of technical proposals.
503 Evaluation of business proposals.
504 [Reserved]
505 Selection.

500 General.

This chapter describes the policy applicable to the activities of evaluation and selection of potential recipients. These are the activities key to the effective implementation of ERDA's mission.

501 Treatment of proposal information.

The FAM policy for treatment of proposal information is identical to the policy in 41 CFR 9-3.150 which is incorporated herein by reference.

502 Evaluation of technical proposals.

a. Policy. ERDA will strive to maintain the highest standards of public accountability by making competent, objective, impartial judgments as to the merits of proposals submitted and by documenting the rationale for the decisions made.

b. *Evaluation criteria.* Proposals shall be evaluated in accordance with the applicable evaluation criteria as stated in the solicitation or unsolicited proposal guides. ERDA program offices are responsible for developing criteria which appropriately reflect ERDA program priorities and needs. Program officials are responsible for the implementation of the policy in a. above.

c. *Peer review.* [Reserved].

503 Evaluation of business proposals.

a. *General.* Evaluation of business proposals include separate evaluations of the prospective recipient in b. below, and the proposed business proposal or budget. The Awarding Officer is primarily responsible for

the evaluation of the business aspects of the proposal but will need to rely on project officer judgments regarding need and reasonableness of quantity of resources proposed.

b. *Evaluation of the prospective recipient.* A prospective recipient must be evaluated for at least the following:

1. Responsibility determination. See Section 703.

2. Adequacy of financial management system. See Section 210.

3. Compliance with nondiscrimination requirements. See Sections 212, 213, and 214.

4. Approved assurances regarding the protection of human subjects. See Section 219.

c. *Evaluation of the business proposal and budget.* A business proposal or budget should be evaluated for at least the following:

1. Allowability of cost in accordance with applicable Federal cost principles if a grant or cooperative agreement. See Section 808. Preaward audits are not required but may be requested when necessary to determine adequacy of the accounting system or reasonableness of the proposal. Audit's role should be used for these purposes rather than to determine the exactness of each cost element, since the pricing objective is to support the recipient with a reasonable and realistic quantity of resources, not to obtain the lowest possible price to the Government.

2. Availability of an approved overhead rate if a grant or cooperative agreement with institutions of higher education, hospitals, other nonprofit organizations, and State and local local governments. See Section 808. Establish or determine availability of reasonable or approved overhead rate if cooperative agreement, or grant with profit making organization, individual, or foreign organization.

3. Review terms and basis for cost sharing, or cost participation, if any. See Section 205.

4. Subagreements.

5. Bona fide proposal signature of both the principal investigator and an officer of the submitting organization with the power to commit the organization to performance.

6. Evaluate type of instrument recommended. See Section 602.

7. Review requests for waiver and other patent and rights in data provisions. See Section 215.

8. Evaluate need and allowability of equipment requested. See Sections 808 and 814.

9. Determine type and content of technical reports. See Section 801.

10. Establish method of payment. Bear in mind the objective to support and provide cash flow to the recipient, rather than payment only on the basis of reimbursement or partial delivery. See Section 807.

11. Evaluation reasonableness of cost or budget elements, cost sharing, and total resources requested. The need and realism of estimates for travel and equipment should be evaluated in terms of the objectives, interests, and limitations of the program.

12. Determine which party will do the accounting for the project, if a cooperative agreement.

13. The Project Officer shall assess the need and reasonableness of the resources requested.

14. How funds which pass through the recipient to subrecipients will be handled and accounted for.

d. *Evaluation of business arrangement for cooperative agreements.*

Evaluate business arrangements for cooperative agreements in terms of paragraphs b. and c. above

The development of appropriate business arrangements requires the application of sophisticated business analysis and judgment.

Project officers should be actively and thoughtfully involved in evaluating and conceptualizing cooperative agreement business arrangements because it is they who will be responsible for ERDA's performance under the agreement.

504 Reserved.

505 Selection.

a. *Policy.* ERDA will strive to maintain the highest standards of public accountability by making competent, objective, impartial judgments as to which proposals best reflect ERDA program priorities and needs, and by documenting the rationale for the award decisions made.

b. *Number of awards.* The methods of publicizing ERDA programs listed in Section 301 may result in multiple, one, or no awards. The number and dollar amounts of actual awards depends upon the relevance and merit of the proposals submitted.

CHAPTER 6—AWARD INSTRUMENTS

Sec.:	*Title*
600	Purpose.
601	Instrument authority.
602	Selection of instrument category: procurement contract, grant agreement, cooperative agreement.
603	Grant face page.
604	Project grant for institutions of higher education, hospitals, and other nonprofit organizations.
605	Project grant for State and local governments.
606	Project grant for profit-making organizations and individuals.
607	Used equipment grants.
608	Conference grants.
609–619	Reserved for additional grant instruments.
620	Cooperative agreement face page.
621	Provisions for cooperative agreements.

600 Purpose.

This Chapter provides grant and cooperative agreement instruments and the rationale for their use. The Director of Procurement is responsible for establishing grant and cooperative agreement instruments and policy regarding their use. No grant or cooperative agreement instruments are authorized for use by ERDA unless prescribed by the Director of Procurement.

601 Instrument authority.

a. *General instrument authority.* ERDA has been given broad flexible instrument authority for use in both nonnuclear and nuclear programs. The "Energy Reorganization Act of 1974" (P. L. 93–438) and the "Atomic Energy Act of 1954," both authorize the making of arrangements (including contracts, agreements, and loans). The terms arrangements and agreements include grants and cooperative agreements. The "Federal Nonnuclear Energy Research and Development Act of 1974" (P. L. 93–577), authorizes fund transfers, grants, or contracts. Because the foregoing three Acts authorize contracts for research, the authority of the "Grants Act" (P. L. 85–934), 42 USC 1891–1893 which authorizes the making of grants for basic scientific research at nonprofit institutions of higher education or at nonprofit organizations whose primary purpose is the conduct of scientific research is also available.

b. *Specific instrument authority.* Additional specific instrument authority is available in the various ERDA legislation.

1. P. L. 93–577, the "Federal Nonnuclear Energy Research and Development Act of 1974," authorizes financial awards, planning grants, and cooperative agreements for certain designated purposes.

2. P. L. 93–409, the "Solar Heating and Cooling Demonstration Act of 1974," authorizes contracts and grants as may be necessary or appropriate.

3. P. L. 93–410, the "Geothermal Energy, Research, Development and Demonstration Act of 1974," authorizes cooperative agreements for certain purposes.

4. P. L. 93–473, the "Solar Energy Research, Development, and Demonstration Act of 1974" authorizes cooperative agreements for certain designated purposes.

602. Selection of instrument category: Procurement contract, grant cooperative agreement.

a. *General.* ERDA legislation authorizes programs and a variety of award instruments without a legislative prescription as to which instruments must be used for particular programs except for the limited direction summarized in Section 601.b. The legislation does not establish "grant programs" as such, and further does not limit the use of grants to certain programs, purposes, or parties such as educational and nonprofit institutions or State and local governments. The legislation leaves the choice of instruments to the administrative discretion of ERDA for use as reasonable and appropriate. Since there are various kinds of instruments within the grant, contract, and cooperative agreement categories, the guidance in this Section will indicate when the use of a particular category of instruments is appropriate. The guidance is provided in terms of the Federal objective and Federal role as manifested in the degree of control sought by ERDA program officials, not the characteristics intrinsic in the project itself.

b. *Procurement contracts.* Use procurement contracts when one or any combination of the following applies:

1. Whenever the prinicpal purpose of the award is the acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of ERDA. A contract may be used for assistance when needed or appropriate to best accomplish the objectives of ERDA.

2. The outcome of the effort is something which ERDA must have or obtain to meet its program or operational needs.

3. ERDA program official(s) consider(s) it necessary to exercise strong control over the objectives, direction, specifications, costs, reporting of results, methods of research, and scheduling of the project. The factor of control alone may dictate use of a procurement contract even though other considerations may suggest use of a grant or cooperative agreement. Control means the rights to unilaterally terminate for convenience or default where under default the government obtains repurchase rights and may impose excess costs and damages upon the contractor; issue unilateral changes; issue stop work orders; redirect the work within the limits of the scope of work and changes clause; specify strict not merely general adherence to the scope of work; and require extensive and detailed rather than summary reporting of results.

4. It is necessary to prohibit the contractor from withdrawing or limiting the withdrawal to a few milestone points or contract objectives.

5. ERDA desires to obtain for or have delivered to itself: personal or real property; construction; services subject to the Services Contract Act; paper studies which offer to perform the routine functions to collect, categorize, analyze, evaluate and recommend; management consultant services the subject of which is ERDA operations, management, organization and the like; or ADP equipment and services.

6. ERDA desires to accept a proposal solicited by a request for proposal or quotation and make an award.

7. Procurement contracts include cost sharing contracts (See ERDA-PR 9-4.56). A cost sharing contract is suitable for those procurements which cover projects which are jointly sponsored by the Government and the contractor in lieu of full monetary reimbursement of costs. In consideration of this benefit, the contractor agrees to absorb a portion of the costs of performance.

c. *Grants.* Use grants when:

1. The principal purpose of the relationship is the transfer of money, property, services, or anything of value to the recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of ERDA; and no substantial involvement is anticipated between ERDA and the recipient during performance of the contemplated activity.

2. This paragraph restates the thought of paragraph 1. in more specific terms. The outcome of the effort is something which ERDA determines is useful, beneficial, would like to explore, try out, support, stimulate, encourage, accelerate, experiment with, see if it works, and which outcome would be helpful but not mandatory to meet program objectives or operational needs and ERDA's role is that of supporting the grantee's project rather than obtaining satisfaction of an ERDA operational or program requirement; and ERDA does not consider it necessary to exercise or have the types of contractual controls as described in b.3. and considers that preaward approval of the proposed project and post award monitoring compared to direction is sufficient to assure the desired outcome.

Monitoring generally connotes a more passive, nondirective, observer role with rights to revoke or terminate but not default with its associated rights; changes may not be made unilaterally by ERDA but must be the subject of mutual agreement; stop work orders may not be issued; ERDA may not redirect the work after award. The grantee has wide latitude in how the purposes of the grant are accomplished, especially in research grants.

The working relationship is more flexible and less formal than the formal and legalistic relationship under a procurement contract. Simplicity and economy in execution and administration are mutually desirable and appropriate.

3. Grants may be used with commercial firms to accomplish purposes of the nature described in c.1. The following are a few examples which are intended to illustrate but not limit the appropriate use of grants with commercial firms:

(a) a firm needs support to complete, not begin, the research, development, testing initial marketing necessary to bring an idea, machine, technique, etc., which ERDA considers promising to the point of application, demonstration, or commercial availability.

(b) a firm has an idea or equipment which needs ERDA support to demonstrate or operate for a trial period.

(c) ERDA desires to accelerate or stimulate the rate of activity in which a firm is already engaged.

(d) ERDA desires to add a new or additional factor or consideration to work already contemplated and being performed by a firm.

4. Grants shall never be used to evade the advertising and competitive negotiation requirements of the Federal and ERDA Procurement Regulations where a procurement transaction is appropriate, or be selected for use in lieu of a procurement contract on the basis of relative processing times.

5. Grants shall not be used in cases where the factors in b. indicate a procurement contract is more appropriate.

d. Use cooperative agreements when:

1. The principle purpose of the ERDA is the transfer of money, property, services, or anything of value to a recipient to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of ERDA; and substantial involvement is anticipated between ERDA and the recipient during performance of the contemplated activity. In determining ERDA's purpose consideration should be given to representations made to Congress, ERDA's programmatic objectives, the intended ownership of facilities and major equipment, the degree of government control needed, and the intended responsibilities of the parties. In addition, the factors in 2, 3, 4. below should be considered.

2. ERDA desires to enter into a partner or joint venture type relationship to support the recipient's project which is intended to achieve objectives which are or directly related to the operational missions of both ERDA and the recipient. In some instances, the parties will be jointly and mutually responsible for performance of work and/or provision of materials or services in their distinct areas of responsibility in order to achieve an outcome which is of mutual interest and benefit.

3. ERDA desires to establish a relationship with other parties in which the participants and ERDA agree to coordinate and cooperate with each other in performing their respective but related missions or to share in each others work results.

4. As a matter of fairness it is considered appropriate to allow the performer some control over changes rather than provide the Government the unilateral right to change. Such control may be based upon a reliance on the good business judgment of the performer. Also it might be appropriate to allow the performer some right to withdraw or to restrict the Government's right to withdraw. It might be appropriate to condition the ability to withdraw by either party or to impose penalties if the right to withdraw is exercised by either party.

5. ERDA has had only limited experience with the use of cooperative agreements to date. It is strongly suggested that cooperative agreements be utilized very selectively until substantial experience is gained in their use. After such experience has been gained this Manual will be appropriately modified and this paragraph deleted.

6. Note the exclusions from this Manual in Section 101.

e. *Approval.* The written approval of the AAA, General Counsel, and Controller (or as they may delegate) must be obtained for the issuance of any grant or cooperative agreement which may exceed $5,000,000 prior to the issuance of solicitation, when the instrument is to be specified, or prior to award, when the instrument was not specified in a solicitation or the project was unsolicited. The request for approval should provide a brief statement justifying the use of the proposed instrument in accordance with the guidelines in this section.

603. Grant face page.

a. *Purpose.* The grant face page (Form ERDA-337, Notice of Grant Award) contains all administrative data needed for a grant award. The face page includes variable 18 numbered blocks to be completed by ERDA prior to issuance of a grant award. Preprinted copies of Form ERDA-337 may be requested from the Director of Procurement. A sample Form ERDA-337 is contained in Appendix B to the Manual. The form may be used to make any kind of grant award with any type of grantee.

b. *Completion instructions.* The following instructions of how to complete Form ERDA-337 are arranged in the numerical order in which the blocks appear.

1. *Block 1a., Grant Number.* Grants shall be numbered in accordance with the instructions in Section 713.

2. *Block 1b., Modification Number.* Modification numbers shall be in accordance with instructions in Section 713.

3. *Block 2., Grant period.* The grant period is the time for which ERDA financial support will be actually awarded and during which the grantee will be authorized to make charges against the grant.

4. *Block 2a.* Project period is the total period for which the ERDA program has given project approval. See Section 903 for explanation.

5. *Block 3., Type of action.* (a) New award-indicates a new grant award instrument with a new number where there is no current or prior grant award for the same project. See Section 901.

(b) Continuation-indicates both additional time and money in support of multi-year projects which at the outset are recognized as ongoing or long run. See Section 903 for explanation.

(c) Supplement-indicates additional money, with or without additional time. See Sections 902 and 903 for explanation.

(d) Renewal-indicates a new grant instrument and number to support a project which has received prior ERDA support. See Sections 902 and 903.

(e) Termination-indicates that the grant is being wholly or partially terminated. The extent of the termination should be indicated in Block 16., Remarks. Note the requirement in Section 816 to coordinate proposed termination or suspension actions affecting educational institutions with Office of University Programs.

(f) Other-provides space for identifying a type of action, such as a transfer, not included in (a) through (e) above.

6. *Block 3.a., Type of grant.* See Sections 902 and 903 for explanation.

7. *Block 4., Grantee name and address.* Self explanatory.

8. *Block 5., Grantee type.* Indicate the type of grantee by organization.

9. *Block 6., Project title.* Self explanatory.

10. *Block 7., Project will be conducted per.* Indicate whether the grant project will be conducted as described in the grantee's proposal(s) including revisions, or a separate project description. If ERDA accepts the Grantee's proposal without change as the project definition for support, then insert the proposal date. If the proposal is not accepted without change, the grant must indicate those parts of the proposal which are accepted or rejected. If the project under the grant is only partly described in the proposal, the balance of the project must be separately stated. If the award budget differs from the proposed budget, an Appendix B award budget must be attached which shows the amounts agreed to for each cost element.

11. *Block 8., Technical reports are required.* This block provides a means of indicating the types of reports needed by the program officer. The types of performance reports permitted for institutions of higher education, hospitals, and other nonprofit organizations are described in Section 801. No grant will be awarded without a requirement for a final report.

12. *Block 9., Principal Investigator(s) or Program Director(s).* Indicate the name(s) and address(es) of the individual(s) designated by the grantee who will be responsible for the scientific or technical direction of the grantee's project.

13. *Block 10., ERDA Program (Project) Officer.* Indicate the name address, and telephone number of the ERDA scientific or technical employee responsible for the scientific and technical aspects of grant administration and for liaison with the principal investigator or program director.

14. *Block 11., Accounting and appropriation data.* Indicate the complete set of financial data necessary to properly record the commitment and obligation of funds, and for making payments. See ERDA Manual Appendix 1101, Part II.

15. *Block 12., Method of payment.* The grants officer is responsible for determining the appropriate method of payment in accordance with the requirements of Section 807.

16. *Block 13., Submit vouchers, if any, to grants officer.* Where payment methods require submission of vouchers or requests for advance or reimbursement (see Section 805), they will be submitted to the grants officer unless otherwise indicated in block 13. This provides for a known submission point unless some other submission point is appropriate in accordance with other Headquarters or Field Organization instructions or procedures.

17. *Block 14., Funding sources and allocation to project time units.* Block 14 is designed to show the source of financial support (ERDA, Grantee), project time units (one or several years), and the funding allocation to each time unit. The layout can accommodate a variety of projects including new (one or several year) efforts, supplements, continuations, with or without cost participation. Under the source column, the terms "this grant" provide space to enter amounts of funds from ERDA and the grantee (the grantee cost share). For supplement and continuation actions, the terms "previously obligated" by ERDA and "prior grant" by Grantee refer to funds made available from a prior grant action which are currently available to fund a present and/or future project time unit.

18. *Block 13., Amount obligated by this grant action.* Indicate the total *new* dollars awarded/obligated by this action regardless of whether the action is a new award or modification, or how the funds are allocated over the current and/or prospective project time units.

19. *Block 16., Remarks.* If the grant award contains a patent clause, the name and mailing address of the cognizant ERDA patent counsel should be included in this block. This block may also be used for written acceptance by the grantee.

20. *Block 17., ERDA Issuing Office.* Indicate the ERDA procurement office responsible for issuing the grant instrument. If the ERDA office other than the issuing office will be responsible for administering the grant, so indicate in Block 16., Remarks.

21. *Block 18., ERDA Grants Officer.* Only those ERDA officials who have been formally designated Grants Officers by delegation of grant authority may execute grant awards. See Section 202b.

604 Project grant for institutions of higher education, hospitals, and other nonprofit organizations.

a. *Content of instrument.* The instrument is composed of a grant face page (Form ERDA-377, Notice of Grant Award, see explanation in Section 603 and sample in Appendix B) and ERDA Project Grant Provisions for institutions of higher education, hospitals, and other nonprofit organizations, see Appendix C at the back of the Manual. Appendix C is designed to be attached as is to the grant face page without need for any additional entries, typing, or modification. All data particular to an individual grant award will be entered on or reference in the grant face page.

b. *Use of instrument.* The grant instrument described in paragraph a. may be used to make awards for any type of assistance project except construction to institutions of higher education, hospitals, and other nonprofit organizations, such as (but not limited to) research institutes, educational associations, and health centers. The grant may be for more than one but not more than a five year period. See Sections 902 and 903 regarding discrete and continuing grants.

605 Project grant for State and local governments.

a. *Content of instrument.* The instrument is composed of a grant face page (Form ERDA-377, Notice of Grant Award, see explanation in Section 603, and sample in Appendix B), and ERDA Project Grant Provisions for State and local governments, see sample in Appendix E. Appendix E is designed to be attached, as is to the grant face page. All data particular to an individual grant award will be entered on or referenced in the grant face page.

b. *Use of instrument.* The grant instrument described in paragraph a. may be used to make awards for any type of assistance project except construction to State and local governments.

606 Project grant for profit making organizations and individuals.

a. *Content of instrument.* The instrument is composed of a grant face page (Form ERDA-377, Notice of Grant Award, see explanation in Section 603, and sample in Appendix B), and ERDA Project Grant Provisions for Profit Making Organizations and Individuals, see sample in Appendix F. Appendix F is designed to be attached, as is, to the grant face page. All data particular to an individual grant award will be entered on or referenced in the grant face page.

b. *Use of instrument.* The grant instrument described in paragraph a. may be used to make awards for any type of assistance project except construction to profit making organizations and individuals.

607 Used equipment grants under the Atomic Energy Act.

a. *Content of instrument.* The used equipment grant instrument is composed of a grant face page (Form ERDA-377-1, Notice of Grant Award for Used Equipment) and Used Equipment Grant Provisions, see samples in Appendix G.

b. *Numbering, reporting, execution.* Used equipment grants are subject to the applicable provisions of the ERDA Federal Assistance Manual including Sections 202 Execution, 713 Numbering, and 714 Reporting.

c. *Use.* Used equipment grants may be awarded to colleges, universities, hospitals, and eleemosynary or charitable institutions for the purposes authorized by the Atomic Energy Act, 42 USC Section 2051.

608 Conference grants.

a. *Content of instrument.* The conference grant instrument is composed of a grant face page (Form ERDA-377, Notice of Grant Award) and ERDA Conference Grant Provisions, see Appendix H.

b. *Use of instrument.*

1. *Purpose.* The grant instrument described in paragraph a. may be used to make awards to provide financial assistance for conferences including symposia, workshops, seminars, and similar undertakings where the purpose is to provide for communication and exchange of information or views directly pertinent to ERDA's mission. The use of a grant for conferences must be consistent with the instrument selection criteria in Section 602.

2. *Recipients.* The instrument may be awarded to any type of recipient provided the recipient is responsible in accordance with the criteria in Section 703 and that the grant does not provide for payment of fee, profit, or retention of income in excess of costs after the conclusion of the conference project.

3. *Dollar ceiling.* The instrument may not be used for awards in excess of $75,000, without prior approval from the Director of Procurement, Assistant Director for Policy.

4. *Grant period.* The grant shall not be awarded for a time period greater than that necessary to prepare, present, and complete the conference work. A conference grant, once awarded, shall not be renewed.

5. *Program terms and conditions.* The conference grant includes only essential operational and statutory provisions. Program terms and conditions including the desired budget format, reports, allowable and unallowable costs in addition to the guidance provided in the applicable federal cost principles as identified in Section 808, which may be needed in addition, should be provided to the Grants Officer by the initiating program division so they may be incorporated into the grant award.

c. *Guide for allowability of conference costs.*

Because of the frequency with which similar questions are raised regarding the phrase "facilities for meetings and costs incidental thereto", contained in the various sets of Federal cost principles, the following summarizes the allowability of various items of cost associated with conferences, symposia, workshops or other meetings supported by ERDA awards.

1. *Allowable costs.*

(a) *Conference facilities.* Rental of facilities and necessary equipment is allowable.

(b) *Supplies.* Purchase of expendable materials and supplies necessary for the meeting is allowable.

(c) *Conference services.* Costs of translation services, and of recording and transcribing the proceedings, are allowable.

(d) *Publication costs.* Cost of publishing the proceedings are allowable.

(e) *Salaries.* Salaries of professional personnel, editorial and clerical assistants, and other staff members are allowable in proportion to the time or effort devoted to the preparation and conduct of the conference and summarizing its results.

(f) *Consultant services and speakers fees.* Reasonable fees and travel allowances are allowable.

(g) Administrative costs of a U.S. organization cosponsoring a conference outside of the U.S.

(h) Travel expenses of U.S. participants to a conference outside of the U.S. when approved by ERDA.

2. *Unallowable costs.* (a) Entertainment costs. (b) Social activities. (c) Purchase of equipment. (d) Alcoholic beverages.

d. Preaward action by grants officer. The following Conference Grant Provisions referenced by number require preaward action by the grants officer:

1.a. Include a definition of what the grant is for (what the grantee will do) either by incorporating the grantee's proposal by reference or attaching a project description.

2.b. Develop an award budget which lists the cost elements and amounts approved by the project and/or Grants Officer. Only those costs which are allowable under applicable Federal cost principles may be approved and included in the award budget. The approved budget must be included in the grant award. Funds included for travel by third parties, if any, must be expended in accordance with Federal travel regulations. No funds shall be approved for social activities, alcoholic beverages, entertainment and the like. Doubts about the allowability of certain costs should be coordinated with the cost policy staff, HQ Division of Procurement.

2.c. The grantee's proposal should present information as to all sources of supporting funds for the conference in order to permit administration of the conference income provision.

3. Indicate the method of payment on the face page.

4. The program offices must specify what reports they require from the grantee. This may be satisfied by the grant requirement for a brief, informal letter type report, or may extend to requiring delivery of published conference proceedings. Conference reporting requirements and papers prepared by ERDA sponsored participants should be coordinated with the Office of Technical Information in accordance with ERDA Manual Chapter 0205. Copies of published documents resulting from ERDA supported scientific or technical conferences should normally be delivered to HQ Office of Technical Information which will then distribute copies to the ERDA Program Office and the Technical Information Center.

5. Be sure funds approved for travel, if any, are specifically identified in the award budget. For foreign travel see Section 818. Funds may not be used to provide travel, per diem, and related expenses to third parties unless specifically approved by the project officer in the award budget. Such approved funds for travel expenses by third parties shall be expended in accordance with the Federal Travel Regulations. Travel costs for grantee employees will be allowed in accordance with applicable Federal cost principles.

e. *Review of final expenditure report.* The grant officer is responsible for reviewing and comparing the expenditure report against the award budget. Expenditures which are consistent with the approved budget should be accepted for payment. Expenditures which are clearly inconsistent with the purpose of the grant as expressed in the approved budget are subject to refund. Unexpended funds will be returned to ERDA. Audit of expenditures is not prerequisite to closeout of the grant. However, where particular expenditures are found to be inconsistent with the purpose of the grant, the grants officer may require the grantee to submit additional information or require an audit if necessary. Reasonable reallocation within the award budget to accommodate functional changes in the grant project do not require advance ERDA approval.

609–619 [Reserved]

620 Cooperative Agreement Face Page.

a. *Purpose.* The cooperative agreement face page (Form ERDA–377–2) provides a place to make reference to the administrative data needed for a cooperative agreement award. The face page by providing a summary of administrative data serves the dual purposes of assuring that all administrative items have been included in the agreement, and of making it unnecessary for the parties to read the entire document to find basic administrative data. The face page includes 18 blacks most of which should be completed by ERDA prior to award. Preprinted copies of the Form ERDA–377–2 may be obtained from the Director of Procurement. A sample Form ERDA–377–2 is contained in Appendix M. The form will be used for all cooperative agreement awards.

b. *Completion instructions.* 1. *Block 1.a., Agreement Number.* Cooperative agreements shall be numbered in accordance with Section 713.

2. *Block 1.b., Modification Number.* Modification numbers shall be in accordance with Section 713.

3. *Block 2., Agreement Period.* The agreement period should identify that period of time during which the agreement is in effect. The period should reflect the period of the cooperative relationship.

4. *Block 3., Participant name and address.* Self explanatory.

5. *Block 4., Participant type.* Indicate the type of participant organization.

6. *Block 5., Project title.* Self explanatory.

7. *Block 6., Project will be conducted per.* Indicate whether the project will be conducted as described in the participant's proposal(s), a separate project description attached as an Appendix, or an Article in the agreement.

8. *Block 7., Technical reports are required.* Indicate where the technical reporting requirements are located in the agreement. Technical reports may be of any kind appropriate to the project and may be mutually required from both parties to the other.

9. *Block 8., Principal Investigator(s) or Program Director(s).* Indicate the name(s) and address(es) of the individual(s) designated by the participant who will be responsible for the scientific or technical direction of the participant's project.

10. *Block 9., ERDA Program (Project) Officer.* Indicate the name, address, and telephone number of the ERDA scientific or technical employee responsible for performance of ERDA's scientific and technical responsibilities under the agreement and for liaison with the principal investigator or program director.

11. *Block 10., Accounting and appropriation data.* Indicate the complete set of financial data necessary to properly record the commitment and obligation of funds, and for making payments. See ERDA Manual Appendix 1101, Part II.

12. *Block 11., Method of payment.* The cooperative agreements officer is responsible for determining the appropriate method of payment in accordance with the requirements of Section 807.

13. *Block 12., Submit vouchers, if any, to cooperative agreements officer.* Where payment methods require submission of vouchers or requests for advance or reimbursement (see Section 805), they will be submitted to the cooperative agreements officer unless otherwise indicated in block 12. This provides for a known submission point unless some other submission point is appropriate in accordance with other Headquarters or Field Organization instructions or procedures.

14. *Block 13., Funding sources.* Block 13 shows the source of financial support (ERDA, Participant).

15. *Block 14., Remarks.* If the award contains a patents clause, the name and mailing address of the cognizant ERDA patent counsel should be indicated in this block.

16. *Block 15., Amount obligated by this action.* Indicate the total new funds awarded/obligated by this action regardless of whether the action is a new award or modification.

17. *Block 16., Participant acceptance.* This block provides for acceptance signature by the participant. Cooperative agreements are always bilateral agreements and require written acceptance by the participant.

18. *Block 17., ERDA Cooperative Agreements Officer.* Only those ERDA officials who have been formally designated as cooperative agreements officers by a delegation of cooperative agreement authority may execute cooperative agreement awards. See Section 202b.

19. *Block 18., ERDA Issuing Office.* Indicate the ERDA procurement office responsible for issuing the cooperative agreement. If an ERDA office other than the issuing office will be responsible for administering the agreement, so indicate in Block 14, Remarks.

621 Provisions for cooperative agreements.

a. *Definition of cooperative agreement.* 1. *Application of procurement regulations.* Cooperative agreements are instruments designed to implement a support or assistance purpose specifically when ERDA desires to establish a partner or joint venture relationship with a non Federal party. A cooperative agreements is not procurement contract. They are, therefore, not subject to the Federal Property and Administrative Services Act of 1949, or the Federal or ERDA Procurement Regulations in 41 CFR Chapters 1 and 9 respectively.

2. *Application of assistance regulations.* By their nature, cooperative agreements cannot be standardized. Although a cooperative agreement is not a grant, it is classified as an assistance instrument. Each agreement must be tailored to reflect the varying responsibilities and rights of the parties for each project. The policies in FMC 74–7 and OMB Circular A–110 are mandatory to cooperative agreements which obligate ERDA funds with State and local governments and to institutions of higher education, hospitals, and other nonprofit institutions respectively. This Manual has been submitted to OMB for review in accordance with the aforementioned Circulars. With profit making organizations, individuals, and foreign organizations, the policies in A–110 and FMC 74–7 are applicable as prescribed in specific sections of the PAM.

3. *Application of Statutes.* For the purpose of determining the applicability of Statutory requirements, cooperative agreements are defined as a "contract" in the broad generic sense, but not procurement contracts. Any clause required by Statute to be included in "any contract" (as opposed to a procurement contract or negotiated procurement contract for the purchase of supplies, material or services) shall be incorporated into such instruments.

Cooperative agreements are also defined as an assistance instrument, as contrasted to procurement instruments. Therefore, any clause required by Statute to be included in awards involving Federal financial assistance or Federal assistance will be included where required. A cooperative agreement is not within the meaning of contract as defined in 41 CFR 60–1.3 or as used in Executive Order No. 11246. See paragraph c.4., 5., and 6.

b. *Objective in fashioning a cooperative agreement.* The objective in drafting a cooperative agreement is to define a business arrangement which, based upon the mutual interest and investment of the parties, defines and allocates the mutual responsibilities and rights appropriate to a particular project. The cooperative agreement generally provides for mutual rights and obligations of the parties, in areas such as project performance and management, termination, changes, extending the period of performance, provisions of resources, title to property, inspection, and insurance and liability. Each cooperative agreement shall be concise and as simple as possible and include only those provisions necessary to clearly state the terms and condition agreed upon. Drafting cooperative agreements will require the application of perceptive and sophisticated business judgment by the ERDA cooperative agreements negotiator, program staff, and ERDA Cooperative Agreement Awarding Officer.

c. *Structure.* The following is an outline of what shall be included in a cooperative agreement. The instrument shall have a face page, a schedule of articles, followed by statutory and policy provisions. Samples of each are provided in Appendices M, N, and O respectively.

1. *Cooperative agreement face page.* Every cooperative agreement with or without funds will have a face page in accordance with Section 620. This document provides a summary of common administrative data elements. See Appendix M for sample.

2. *Schedule Articles.* The subjects included in (a) through (k) below should

usually be covered in all cooperative agreements. The sample Articles in Appendix N are illustrative only. The content of Articles used should be drafted to meet the purposes described below in (a) through (k) as appropriate for each agreement.

(a) *Article I—Statement of joint objective.* The purpose of this Article is to identify the objectives, purposes, and benefits to the parties so as to demonstrate that the agreement is, in fact, a joint endeavor appropriate to a cooperative agreement. This may take the form of a series of whereas statements, or a background statement which describes the ERDA program rationale for awarding the cooperative agreement and how the support provided will achieve ERDA's and the Participant's objective.

(b) *Article II—Description of responsibilities.* The purpose of this Article is to identify the responsibilities each parties to assume as their part in achieving the joint objective. This Article should be as complete a description as possible to assure that there are no unassigned responsibilities which may hamper successful project completion. The description may be in either narrative or outline form, and should always include a description of what resources such as services, facilities, equipment, materials, supplies, personnel, etc. each party will provide and when.

(c) *Article III—Financial support of the project.* This Article is only applicable if ERDA and/or the participant contributes funds to the project. The purpose of this Article is to identify what the dollar costs of the project will be, if any, and how the responsibility for funding will be assigned to each party. All kinds of arrangements are possible where both, neither, or either ERDA and the Participant obligate or otherwise transfer funds to the other, or where one party provides funds and the other provides equipment, services or other in-kind items of value.

In any event, the financial responsibilities must be defined. This may take the form of minimums, ceilings, and who will be responsible for costs in excess of amounts originally estimated.

If ERDA does obligate funds, the Article should state the total amount to be obligated over the total period of the agreement, and if a lesser amount is obligated at award, so state. The basis for cost allowability should be so specified. See Section 808 b. regarding applicability of cost principles to cooperative agreements. This Article should be drafted to complement the Limitation of Cost Article in c.3.

The rights and obligations of the parties should be defined in the event the project cannot be completed within the estimated cost.

(d) *Article IV—Method and basis of payment.* This Article is only applicable if ERDA obligates funds in Article III in (c). See Section 807 for payment methods and Section 805 for general guidance regarding financial reporting requirements and payment request forms. See Section 805 j. Financial Forms Matrix for summary of forms. The guidance in the Sections 805 and 807 may be modified or adapted as necessary to meet the requirements of a particular cooperative agreement.

(e) *Article V—Term of agreement.* This Article should indicate when the agreement begins, when the project should be completed. If appropriate it may provide that the period of the agreement may be extended as mutually agreed by ERDA and the Participant.

(f) *Article VI—Project management.* This Article should state the responsibilities for project management and how progress and performance will be measured to evaluate whether the objectives stated in Article I are achieved. If the responsibilities are extensive, a management plan may be stated in an Appendix to the agreement. The program director for the Participant and ERDA's project officer will be identified on the face page for easy identification.

(g) *Article VII—Project information.* This article should describe the requirements for a flow of project information between the parties. Project information may include technical reports but not be limited to such reports. Both parties may obligate themselves to provide reports to the other. This may be especially appropriate for agreements where the Participant provides raw data to ERDA for analysis and expects to receive the benefit of the results.

(h) *Article VIII—Changes and modifications.* Changes to the project under the agreement may be necessary during the term of the agreement. Where such changes may occur, this article should cover the method by which changes may be initiated and accepted.

(i) *Article IX—Termination.* This article should describe the terms and conditions applicable to termination. The provision may permit termination by either party and provide for any conditions, restrictions, or penalties with respect to such termination. The consequences of termination must be defined in terms of property, funds invested, patent and data rights, and the like.

(j) *Article X—Liability and indemnification.* This Article should define the potential hazards and risks to the parties employees, and to third parties, and express the respective responsibilities of the parties regarding liability, and whether or how these risks will be insured. In cooperative agreements, the Government will not always self insure. In certain cases, it is appropriate for ERDA to ask the Participant to obtain or, include ERDA as an insurable party under the Participants insurance. In other cases, ERDA and the Participant may decide to each be responsible for handling their own risk exposure especially where their own employees and facilities are involved. This is an area which shall be reviewed by ERDA legal counsel prior to award.

(k) *Article XI—Contents of agreement.* This Article must list all of the components of the cooperative agreement.

3. *Schedule Articles. (Subjects to be covered when applicable.)* This is not intended as an all inclusive list, but is provided for general guidance. See Appendix N for samples.

(a) *Article—Title to property.* This Article should describe the rights of the parties as to title to property. The Article should express a position which reflects what each party provides to the agreement in terms of funds to acquire property, property itself, ERDA's short and long run program objectives, and the Participant's objectives. Disposition should be specified both in the event of termination by either party and at project completion.

(b) *Article—Patent rights and related clauses.* Cooperative agreements are within the meaning of the term contract as used in P. L. 93-577, Section 9 (m)(2). Therefore any cooperative agreement which includes research, development, or demonstration work, shall include applicable patent rights provisions from 41 CFR 9-9. Because Participants under cooperative agreements may involve private resources equal to or greater in value than the resources provided by ERDA, special patent waiver provisions may be appropriate. All patent right provisions, rights in data provisions or other like provisions other than those published in 41 CFR 9-9 shall be approved by ERDA Patent Counsel prior to award. When ERDA provides funds for research, development or demonstration under a cooperative agreement the following clauses shall be included:

(1) *Rights in technical data clause (short form) or (long form).* If the long form is used the Additional Technical data requirements clause (41 CFR 9-9.202-3) in accordance with Section 215 d.

(2) *Authorization and consent* clause of 41 CFR 9-9.102-2 in accordance with Section 215 e.

(3) *Notice and assistance clause* of 41 CFR 9-9.104 in accordance with Section 215.

(4) *Classified inventions* clause of 41 CFR 9-9.106 in accordance with Section 215 g.

(5) Reporting or royalties clause of 41 CFR 9-9.110 in accordance with Section 215 h.

(6) The patent rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.105-6 in accordance with Section 215.

(c) *Article—Subcontracts.* If subcontracts are either a large part of the project or are critical to its success, ERDA may desire to impose requirements for review and consent prior to the subcontract award.

(d) *Article—Public access to the project.* If the project requires public support, understanding, or acceptance to achieve the project objectives, a provision may be included which requires the Participant to provide for public access and viewing of the project.

(e) *Article—Mutual observance of rules.* If the project requires employees of the respective parties to work on the property of the other party, a provision may be included which covers observance of rules on each others property.

(f) *Article—Public information releases and publication.* A provision requiring coordination of all public releases concerning the project may be included in the agreement. Agreement should also be reached regarding the conditions for publication of results. ERDA Manual Chapter 3101 and the Office of Public Affairs should be consulted for advice in defining requirements in this subject area.

(g) *Article—Limitation of cost.* This Article should be included in the agreement when the agreement obligates ERDA funds. The purpose to be accomplished by establishing financial limits is to prevent financial liabilities to ERDA greater than the amount obligated. A limitation of cost provision is a means of assuring compliance with the Anti-Deficiency Act.

4. *Provisions.—Required Statutory and policy provisions in all cooperative agreements.* (Appendix O contains the prescribed text for these provisions. Changes to the text require deviation approval.)

(a) Officials not to benefit. (41 U.S.C. 22).

(b) Covenant against contingent fees. (policy).

(c) Sex discrimination prohibited. (Energy Reorganization Act of 1974, Pub. L. 93-438, Title IV, Section 401).

(d) Small and minority business participation. (Energy Reorganization Act of 1974, Pub. L. 93-438, Section 2(d), and policy).

(e) Preference for U.S. Flag Air Carriers. (International Air Transportation Fair Competitive Practices Act of 1974, Pub. L. 93-623, Section 1117).

(f) Disputes (policy). This provision prescribes the method whereby disagreements between the parties to a cooperative agreement may be resolved. Because a cooperative agreement reflects a partnership type relationship, disagreements should be resolved informally and administratively wherever possible.

5. *Provisions.—Additional provisions required in cooperative agreements which provide for payment of ERDA funds to the*

Participant. (See Appendix O for prescribed text. Text changes require deviation approval.)

(a) *Clean Air and Water.* (Clean Air Act, Section 114, as amended, (42 USC 1857 et. seq., as amended by P. L. 91-604) and Section 308 of the Federal Water Pollution Control Act (33 USC 1251 et. seq., as amended by P. L. 92-500). The foregoing is applicable and the provision in Appendix O shall be included in cooperative agreements where funds in excess of $100,000 are provided to the participant. If funds are not provided by ERDA, or if the funds provided are $100,000 or less, then the foregoing Acts do not apply.

(b) *Civil Rights.* (42 USC 2000d) when ERDA obligates funds uder a cooperative agreement and by so doing provides Federal financial assistance t the Participant, the provisions of the Civil Rights Act 42 USC 2000 d. and the implementing ERDA regulations in 10 CFR, Chapter III, Part 704 apply and the Civil Rights provision in Appendix O shall be included in the agreement.

(c) *Discrimination against handicapped prohibited.* (Rehabilitation Act of 1973, 29 USC 794). When ERDA obligates funds under a cooperative agreement and by so doing provides Federal Financial Assistance to the Participant, the provisions of the Rehabilitation Act Section 794 apply and the provision in Appendix O shall be included in the agreement.

(d) *Examination of records by Comptroller General.* (Policy based on 41 USC 254(c)). All cooperative agreements which provide for payment of ERDA funds to the Participant shall include the Examination of Records by the Comptroller General provision provided in Appendix O.

(e) *Assignment of Claims (41 USC 15).* All cooperative agreements which provide for payment of ERDA funds to the Participant shall include the Assignment of Claims provision provided in Appendix O.

(f) *Audit.* (Policy). All cooperative agreements which provide for payment of ERDA funds to the Participant shall include the Audit provision provided in Appendix O.

6. *When applicable provisions.* Text changes require deviation approval.

(a) *Equal Employment Opportunity.* (Executive Order No. 11246)

(1) Applicability. The provisions of the foregoing Executive Order apply to cooperative agreements only when such agreements involve the award of Federal financial assistance which may include a construction contract, and to all contractors and subcontractors performing under construction contracts which are funded from such programs. When applicable, the provision in Appendix O shall be used.

(2) Definition of Federally Assisted Construction Contract. (FPR 1-12.802(k).) "Federally assisted construction contract" means any agreement, or modification thereof, between any applicant and a person for construction work which is paid for, in whole or in part, with funds obtained from the Government or borrowed on the credit of the Government pursuant to any Federal program involving a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the Government for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.

(b) *Buy American Act.* All cooperative agreements which provide for payment of funds to the Participant any part of which may be used to acquire articles, materials, and supplies to make an end product which is to be delivered to EPDA for its use, shall include the Buy American Act clause as provided in Appendix O. If title to all end products is held by the participant this clause shall not be used. Under such circumstances a clause expressing a preference for domestic articles, materials and supplies may be included instead.

(c) *Mandatory purchase of flood insurance.* (Flood Disaster Relief Act of 1973, P. L. 93-234.)

(1) The Flood Disaster Protection Act of 1973 (P. L. 92-234), as amended, requires that participants purchase flood insurance as a condition of receiving any form of Federal financial assistance, including loan guaranties, for acquisition or construction purposes in an identified flood plain area having special flood hazards. The requirement applies to all identified special flood hazard areas within the United States, and no Federal financial assistance can legally be provided for structures in those areas unless the community has entered the National Flood Protection Insurance Program and flood insurance has been purchased.

(2) Questions pertaining to the compliance with the provisions of the Act and the guidelines of the Federal Insurance Administration (FIA) shall be referred through the Administrator to the FIA. Applicable regulation has been published in 24 CFR, Chapter X, Subchapter B. When the Act is applicable, the provision in Appendix O shall be included in the agreement.

CHAPTER 7—NEGOTIATION AND AWARD OF AGREEMENT

Sec.:	*Title*
700	Negotiation of agreement.
701	Authority to make award.
702	Reserved.
703	Responsible prospective recipient.
704	Preaward review and approval.
705	Award acceptance.
706	Reserved.
707	Do.
708	Recording of grant and cooperative agreement obligations.
709	Reserved.
710	Do.
711	Award notification.
712	Reserved.
713	Numbering of grants and cooperative agreements.
714	Reporting of grants and cooperative agreements in the contract information system.
715	Reserved.
716	Distribution of award documents.
717	Reserved.
718	Grant and cooperative agreement award file contents.

700 Negotiation of agreement.

a. *General.* The objective of ERDA grants and cooperative agreements is to make awards to those parties who offer meritorious ideas and proposals which will meaningfully contribute toward meeting the Nation's energy needs.

b. *Negotiation objective.* The purpose of negotiation(s) is to establish mutual agreement between ERDA and the prospective recipient as to the project definition, timing, ERDA's role in the project, purpose and the resources appropriate to support and carry out the project.

c. *Scope of negotiation(s).* All proposals submitted for possible award pursuant to this Manual, notwithstanding the instrument selected for award, are to be negotiated before award. Any subject which is or may be relevant to the successful accomplishment of the award objective may be the subject of negotiations. During negotiations it is important to question and clarify assumptions and to resolve doubts and ambiguities. The scope of negotiations should consider the project not only as an instant action, but how the project relates to other projects, whether support beyond the initial award will be needed, and whether a discrete or continuing grant is appropriate.

d. *Negotiation of grant and cooperative agreement provisions.* In recognition of ERDA's unique and pressing mission, the policies in this Manual should not be rigidly carried out at the expense of accomplishing ERDA's mission. To provide flexibility and efficiency, any needed deviation from this Manual may be requested and verbally discussed with the Division of Procurement prior to submission of a written request for deviation.

e. *Responsibility for negotiations.* The Awarding Officer is authorized and responsible for accomplishing necessary negotiations. However, because of the importance of the technical aspects of the agreement the Awarding Officer will negotiate the project consistent with the project parameters provided by the project officer. The awarding officer must negotiate only with the recipient's authorized officials and not with program directors or principal investigators. It is the responsibility of the proposer to identify who is authorized to conduct negotiations, concerning fiscal aspects, award terms and conditions, and technical negotiations.

f. Negotiation and processing of requests of waiver of Government patent rights. All waiver determinations shall be initiated by a written request. A request for an advance waiver shall be submitted to the Awarding Officer by the prospective recipient normally in advance of award but in no case later than thirty (30) days after award. A request for a waiver (other than advance waiver) shall be submitted to the Awarding Officer, or to ERDA patent counsel, at the time of first disclosure of the invention or not later than three (3) months thereafter, or such longer period as may be authorized by the Awarding Officer or patent counsel for good cause shown in writing by the recipient or inventor. The processing and approval of all waiver requests, and the negotiation of clauses for approved waivers, shall be conducted in accordance with the procedures set forth in 41 CFR 9-9.109-6.

701 Authority to make awards.

The authority of the Grants Officer and Cooperative Agreement Officer to make grant awards is discussed in Section 202b. and c.

702 Reserved

703 Responsibility of recipient.

a. *Determination of responsibility.* A grant or cooperative agreement shall not be awarded to any prospective recipient until the Awarding Officer determines that the prospective recipient is responsible within the meaning of this section. Written determinations are required by the Awarding Officer only when there is some doubt about the proposer's responsibility or when requested by the project officer.

b. *Standards.* In order to qualify as responsible, a prospective recipient must meet the following standards as they relate to the award under consideration:

1. Has adequate financial resources for performance, or has the ability to obtain such resources as required.

2. Has the necessary experience, organization, technical qualifications, and facilities, or has the ability to obtain them (including proposed subagreements);

3. Is able to comply with the proposed or required completion schedule for the project;

4. Has a satisfactory record of integrity, judgment, and performance, including performance under grants and contracts from the Federal Government.

4. Appears to be able to conform to the Civil Rights and/or Equal Opportunity requirements of this Manual; and

6. Is otherwise qualified and eligible to receive a grant or cooperative agreement award under applicable laws and regulations. Acceptable ability to obtain financial resources, experience, organization, technical qualifications, skills, and facilities (see subparagraphs 1. and 2. above) generally shall comprise a firm commitment or arrangement to obtain financial resources, experience, organization, technical qualifications, skills or facilities.

704 Preaward review and approval.

a. *Headquarters.* Preaward review and approval by the Headquarters Division of Procurement will be required for those matters which arise under Section 105 Deviations, when the award exceeds the dollar ceiling of an awarding officer's delegated authority or when required during the selection process as described in Section 505 c. and d.

b. *Field.* Field offices awarding grants or cooperative agreements pursuant to this Manual are responsible for establishing adequate review requirements to assure consistency with the policies in this Manual.

c. *Cooperative agreement.* No cooperative agreement may be issued, notwithstanding the dollar value, without review by ERDA legal counsel prior to award. Cooperative agreements are subject to the Headquarters review and approval of contract actions in ERDA Procurement Regulation 9-51.102(a) and (b). The dollar threshold is based on the total project funds provided by both parties.

705 Award acceptance.

The recipient is free to accept or reject the award. However, in the absence of a specific acceptance, action to obtain Federal funds constitutes acceptance of an award. In some cases, ERDA may require a recipient to formally accept an award in writing.

706 [Reserved]

707 [Reserved]

708 Recording of grant and cooperative agreement obligations.

a. *General.* This section provides the policy and procedures applicable to the issuance and recording of ERDA grant and cooperative agreement obligations.

b. *Definition of obligation.* An obligation is an actual or contingent liability of a Government activity resulting from orders placed for goods or services, grants/cooperative agreements awarded, and salaries earned which reserve an appropriation for expenditure.

c. *Creation of an obligation.* A legal obligation is incurred when an award is executed by a properly authorized awarding officer, conforms to legal authority, regulations and policy, and the recipient is formally notified of the issuance of the award. Where formal acceptance by the recipient is required, the legal obligation comes into existence upon acceptance by the last party to the agreement. Funds shall have been made available by the Program Office to the Awarding Officer prior to execution of the award. Grant and agreement awards may be fully costed upon obligation.

d. *Recording.* Copies of the obligating documents will be forwarded to the cognizant ERDA Finance Office immediately after the documents have been executed for recording as an obligation in the official accounting records. Claims for payment under awards will not be recognized until the obligating document has been received and recorded by the Finance Office. See Section 716 regarding distribution of award documents.

709 [Reserved]

710 [Reserved]

711 Award notification.

a. *General.* This section establishes requirements and procedures for notification of certain organizations and interested parties prior to or as part of the award process.

b. Congressional notifications. See IAD No. 3101-2.

c. Notification of States of Grants-In-Aid Information in accordance with Department of Treasury Circular No. 1082; OMB Circulars A-95 and A-98. See Section 405.

d. Public Information Releases. See ERDA Manual Chapter 3101.

712 [Reserved].

713 Numbering of grants and cooperative agreements.

Grant awards and modifications thereto shall be numbered in accordance with ERDA-PR Part 9-53 as revised by ERDA-PR Temporary Regulation No. 18 dated June 17, 1976.

714 Reporting of grant and cooperative agreement actions in the contract information system.

a. *Policy.* Grant and cooperative agreement actions made pursuant to this Manual will be reported to the Division of Procurement.

b. *Reporting system.* Grant and cooperative agreement actions will be reported using the existing Contract Information System prescribed by ERDA-PR 9-54 and ERDA-PI Appendix 9-54, Contract Information System (CIS) Handbook.

c. *Supplementary instructions to ERDA-PR 9-54.* In order to report grants and cooperative agreements in the existing CIS, the following supplementary instructions are added to several sections of ERDA-PR 9-54.

1. 9-54.003(a) Definition of "procurement action".

(a) For the purpose of reporting grant and cooperative agreement activity in the Contract Information System, the terms grant and cooperative agreements are equivalent to contract.

(b) For reporting purposes, "Procurement action" shall include all grant and cooperative agreement awards and modifications thereto.

2. 9-54.004 Reports required.

(a) Form ERDA-328A, Contract Data Worksheet, shall be prepared by ERDA procurement offices for each new grant and cooperative agreement award regardless of dollar value including all awards under $10,000.

(b) ERDA-328B, Prime Contract Change Worksheet, shall be submitted to report changes made under the original grant or cooperative agreement.

(c) No Form ERDA-330A, Supplemental Report of Procurement Actions is required.

3. Submission and frequency of reports shall be in accordance with ERDA-PR 9-54.005.

715 [Reserved].

716 Distribution of award documents.

a. *Standard distribution.* Distribution of award document shall be in accordance with ERDA-PR 9-53.108 as revised by ERDA-PR Temporary Regulation No. 18 dated June 17, 1976.

b. *Special distribtuion.* In addition to the standard distribution in a., one copy of every executed cooperative agreement shall be forworded to Division of Procurement, Chief, Policy Development Branch within 30 days after the award.

717 [Reserved].

718 Grant and cooperative agreement award file.

a. *Policy.* ERDA desires to maintain high standards of public accountability in the evaluation of proposals, selection of recpients and the administration of grants and cooperative agreements. To accomplish this end, there will be an orderly, complete, and accessible record of all actions taken concerning the grant or cooperative agreement or modifications thereto. The objective is to assure all decisions affecting grant and cooperative agreements determinations be sufficiently documented so that any person reviewing a file can determine who made a decision, what the decision was, and the supporting rationale.

b. *Award file.* In order to implement this policy, an award file will be established for each grant and cooperative agreement instrument. Modifications will be filed in the award file.

c. *Responsibility.* The grant or cooperative agreement awarding office is responsible for establishing and filing the appropriate documentation for determinations made and actions taken. The project officer is responsible for providing written documentation for all decisions made within the purvue of the program responsibility. The Awarding Officer will assure that all required actions are completed.

d. *Contents.* The items listed below should either be documented or included in the award file. The guide for determining file contents will be the satisfaction of the policy in a.

1. Award file check list. A sample is provided in Appendix D. The sample may be revised to meet local requirements.

2. Copy or reference to the document which stimulated submission of the proposal.

3. List of solicited proposers where a recipient was selected from competing solicited proposals. No list is required for unsolicited proposals.

4. Evaluation criteria and scoring system used for selection.

5. Copies of the narrative technical and numerical evaluation of proposals, a list of proposals to be funded, a list of proposals approved but not funded, and a list of rejected proposals.

6. List of evaluators—names of all individuals who formally reviewed and evaluated proposals, and also the names of those individuals who are responsible for making the selection, rejection decisions.

7. All correspondence to or from Office of General Counsel.

8. Any official and Congressional communications.

9. Copy of the entire proposal.

10. Copies of any clearances.

11. Assurances and Certifications: Civil Rights, Protection of Human Subjects, etc.

12. Business evaluation.

13. Determination of recipient responsibility when necessary.

14. Certification from the program office that funds are available for obligation.

15. Negotiation documentation. If any discussions are held with the prospective grantee to revise or clarify either the technical or cost proposal, the file should be documented to reflect the discussion, the agreements reached, and the changes incorporated as a result of the negotiation.

16. Copy of preaward approvals where required.

17. Copy of the award document and any attachments are awarded.

18. Financial reports.

19. Performance reports.

20. Termination documentation, if any.

21. Audit reports, if any.

22. Requests for changes or approvals, if any.

23. Instrument closeout documents.

CHAPTER 8—POST AWARD ADMINISTRATION

Sec.:	Title
800	Scope of chapter.
801	Monitoring and reporting program performance.
802	Reserved.
803	Reserved.
804	Reserved.
805	Financial reporting and payment request requirements.

Sec.:	Title
806	Revision of financial plans.
807	Payment methods.
	Expenditures under ERDA grants and cooperative agreements.
809	Program income.
810	Fee and profit under ERDA grants and cooperative agreements.
811	Assignment of grant payments to financial institutions (reserved).
812	Successor in interest and change of name agreements (reserved.
813	Property management standards for State and local governments.
814	Property management standards for other than State and local governments.
815	Procurement standards.
816	Suspension and termination procedures.
817	Collection of information—surveys and questionnaires.
818	Foreign travel.

800 Scope of chapter.

This chapter covers financial and technical operating matters which follow a grant or cooperative agreement award and precede requests for additional support or initiation of closeout. The primary responsibility for administration of a grant or cooperative agreement must remain with the recipient, who is responsible for the success of the project for which the award was made. Although recipients are encouraged to seek the advice and opinions of ERDA on problems that may arise, the giving of advice shall not shift the responsibility for final decisions to ERDA. The primary concern of ERDA is that the funds be used to achieve the objectives of the project award consistent with program objectives. Recipients and those assisting them on the project work must direct their efforts to this end.

801 Monitoring and reporting program performance.

a. *Purpose.* This section sets forth the procedures prescribed by OMB Circular No. A-110, Attachment H, and FMC 74-7, Attachment I, for monitoring and reporting program performance of institutions of higher education, hospitals other nonprofit organizations, and State and local governments which receive grants or cooperative agreements. This section is not mandatory, but may be used, in grants and cooperative agreements with profit making organizations, individuals, or foreign organizations.

b. *Responsibility for monitoring.* Recipients shall monitor the performance under grants and other agreements and, where appropriate, ensure that time schedules are being met, projected work units by time periods are being accomplished, and other performance goals are being achieved. This review shall be made for each program (project), function, or activity of each agreement as set forth in the approved application or award documents.

c. *Performance report.* For each agreement recipients shall submit a report that briefly presents the following information for each prgoram, function, or activity as prescribed by ERDA.

1. A comparison of actual accomplishments with the goals established for the period, the findings of the investigator, or both. If the output of programs or projects can be readily guantified, such guantitative data should be related to cost data for computation of unit costs.

2. Reasons why established goals were not met, if applicable

3. Other pertinent information cinluding, when appropriate, analysis and explanation of cost overruns or high unit costs.

d. *Frequency and submission.* Except as provided in 1. and 2. below, and in subparagraph c.1.(a), Section 805, recipients shall submit the performance or technical reports to ERDA and the Financial Status Reports covering the same period in the frequency established in Section 805 c.1.(a) and, where appropriate, a final technical or performance report after completion of the project. ERDA shall prescribe the frequency with which the performance reports will be submitted (quarterly and/or final). Except as provided for in paragraph e. below, performance reports shall not be required more frequently than quarterly or less frequently than annually. ERDA may waive the requirement for recipients to submit performance reports which cover the same period as the financial reports under the following circumstances:

1. When the recipient is required to submit a performance report with a continuation or renewal application.

2. When ERDA determines that on-site technical inspections and certified completion data will be sufficient to evaluate construction projects.

3. When ERDA requests annual financial reports on a fiscal year basis but it is necessary to get annual progress reports on a calendar year basis.

e. *Report of special events.* Between the required performance reporting dates, events may occur that have significant impact upon the project or program. In such instances, the recipient shall inform ERDA as soon as the following types of conditions becomes known:

1. Problems, delays, or adverse conditions that will materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work units by established time periods. This disclosure shall be accompanied by a statement of the action taken, or contemplated, and any Federal assistance needed to resolve the situation.

2. Favorable developments or events that enable time schedules to be met sooner than anticipated or more work units to be produced than orginally projected.

f. *Budget revision.* If any performance review conducted by the recipient discloses the need for change in the budget estimates in accordance with the criteria established in Section 806, the recipient shall submit a request for budget revision.

g. *Site visits.* The ERDA shall make site visits as frequently as practicable.

1. Review program accomplishments and management control systems, and

2. Provide such technical assistance as may be required.

h. *Reports clearance.* ERDA shall submit proposed technical and performance reporting forms to the Office of Management and Budget for approval in accordance with the report clearance requirements of OMB Circular No. A-40 (Clearance of plans and report forms under the Federal Reports Act), as revised. See Section 817. There is no specified performance reporting format required for recipient reporting of information in paragraphs c. or e.

802 [Reserved].

803 [Reserved].

804 [Reserved].

805 Financial reporting and payment request requirements.

a. *Purpose.* This section prescribes uniform reporting procedures required by OMB Circular No. A-110, Attachment G, and FMC 74-7, Attachment H for institutions of higher education, hospitals, other nonprofit organizations and State and local governments to: Summarize expenditures made and Federal funds unexpended for each award, report the status of Federal cash advanced, request advances and reimbursement when the letter-of-credit method is not used; and promulgates standard forms incident thereto. Separate procedures are included in this section for profit making organizations, individuals, and foreign organizations which receive grants or cooperative agreements. Paragraph J. provides a Financial Forms Matrix which charts the forms appropriate for each type of recipient.

b. *Definitions.* The following definitions apply for purposes of this section:

1. *Accrued expenditures.* Accrued expenditures are the charges incurred by the recipient during a given period requiring the provision of funds for: (a) goods and other tangible property received; (b) services performed by employees, contractors, subrecipients, and other payees, and (c) other amounts becoming owed to the recipient for which no current services or performance is required by the recipient.

2. *Accrued income.* Accrued income is the sum of (a) earnings during a given period from (1) services performed by the recipient; and (2) goods and other tangible property delivered to purchasers; and (b) amounts becoming owed to the recipient for which no current services or performance is required by the recipient.

3. *Federal funds authorized.* Federal funds authorized are the total amount of Federal funds obligated by ERDA for use by the recipient. This amount may include any authorized carryover of unobligated funds from prior fiscal years when permitted by law or agency regulation.

4. *In-kind contributions.* In-kind contributions are defined in Section 205 b.2.

5. *Obligations.* Obligations are the amounts of orders placed, contracts and grants awarded, services received, and similar transactions during a given period that will require payment by the recipient during the same or a future period.

6. *Outlays.* Outlays or expenditures represent charges made to the project or program. They may be reported on a cash or accrual basis. For reports prepared on a cash basis, outlays are the sum of actual cash disbursements for direct charges for goods and services, the amount of indirect expense charged, the value of in-kind contributions applied, and the amount of cash advanced and payments made to subrecipients. For reports prepared on an accrual basis, outlays are the sum of actual cash disbursements for direct charges for goods and services, the amount of indirect expense incurred, the value of in-kind contributions applied, and the net increase (or decrease) in the amounts owed by the recipient for goods and other property received, for services performed by employees, contractors, subrecipients and other payees and other amounts becoming owed under programs for which no current services or performance are required.

7. *Program income.* Program income is defined in Section 809b. It may be reported on a cash or accrual basis, whichever is used for reporting outlays.

8. *Unobligated balance.* The unobligated balance is the portion of the funds authorized by ERDA that has not been obligated by the recipient and is determined by deducting the cumulative obligations from the cumulative funds authorized.

9. *Unliquidated obligations.* For reports prepared on a cash basis, unliquidated obligations represents the amount of obligations incurred by the recipient that has not

been paid. For reports prepared on an accrued expenditure basis, they represent the amount of obligations incurred by the recipient for which an outlay has not been recorded.

c. *Financial reporting forms.* Only the following forms will be authorized for obtaining financial information from recipients.

1. All recipients except profit making organizations, individuals, and foreign organizations.

(a) *Financial Status Report* (SF-269).

(1) ERDA shall require recipients to use the standardized Financial Status Report to report the status of funds for all nonconstruction projects or programs. ERDA may, however, opt to not require the Financial Status Report when the Request for Advance or Reimbursement in paragraph d.1., or Report of Federal Cash Transactions in paragraph c.2. is determined to provide adequate information to meet ERDA's needs, except that a final Financial Status Report shall be required at the completion of the project when the Request for Advance or Reimbursement form is used only for advances.

(2) Reports may be on a cash or accrual basis. If the recipient's accounting records are not normally kept on the accrual basis, the recipient shall not be required to convert its accounting system, but shall develop such accrual information through best estimates based on an analysis of the documentation on hand.

(3) ERDA shall determine the frequency of the Financial Status Report for each project or program considering the size and complexity of the particular project or program. However, the report shall not be required more frequently than quarterly or less frequently than annually except as povided in subparagraph c.1.(a) above. A final report shall be required at the completion of the agreement.

4. ERDA shall require recipients to submit the Financial Status Report (original and no more than two copies) no later than 30 days after the end of each specified reporting period for quarterly and semi-annual reports, and 90 days for annual and final reports. Extensions to reporting due dates may be granted upon request of the recipient.

(b) *Report of Federal Cash Transactions* (SF-272).

(1) When funds are advanced to recipients through letters of credit or with Treasury checks, ERDA shall require each recipient to submit a Report of Federal Cash Transactions. ERDA shall use this report to monitor cash advanced to recipients and to obtain disbursement information for each agreement from the recipients.

(2) ERDA may require forecasts of Federal cash requirements in the "Remarks" section of the report.

(3) When practical and deemed necessary, ERDA may require recipients to report in the "Remarks" section the amount of cash advances in excess of three days' requirements in the hands of subrecipients and to provide short narrative explanations of actions taken by the recipients to reduce the excess balances.

(4) Recipients shall be required to submit not more than the original and two copies of the Report of Federal Cash Transactions 15 working days following the end of each quarter. ERDA may require a monthly report from those recipients receiving advances totaling $1 million or more per year.

(5) ERDA may waive the requirement for submission of the Report of Federal Cash Transactions when monthly advances do not exceed $10,000 per recipient, provided that such advances are monitored through other forms contained in this section, or if, in ERDA's opinion, the recipient's accounting controls are adequate to minimize Federal advances.

2. Profit making organizations, individuals, and foreign organizations.

Final cost report. Profit making organizations, individuals and foreign organizations shall submit a final cost report within 90 days after the end of the grant period. The format of the report should be the same as the budget as awarded. The final cost report shall compare the amounts allocated in the award budget to the amounts expended for each budget element, and shall indicate whether there is an unobligated balance to be refunded to ERDA.

d. *Payment request forms.* Except as noted below, only the following forms will be authorized for the recipients in requesting advances and reimbursements.

1. All recipients except profit making organizations, individuals and foreign organizations.

(a) Request for Advance or Reimbursement (SF-270).

(1) The Request for Advance or Reimbursement is required as a standardized form for all nonconstruction programs when letters-of-credit or predetermined advance methods are not used. This form may be used for construction programs in lieu of the Outlay Report and Request for Reimbursement for Construction Programs in subparagraph d.2.

(2) Recipients shall be authorized to submit requests for advances and reimbursements at least monthly when letters-of-credit are not used. ERDA shall not require the submission of more than the original and two copies of the Request for Advance or Reimbursement.

(b) Outlay report and request for reimbursement for construction programs (SF-271).

(1) The Outlay Report and Request for Reimbursement for Construction Programs is required as the standardized format to be used for requesting reimbursement for construction programs. The Request for Advance or Reimbursement Form in subparagraph d.1. may be substituted when ERDA determines that it provides adequate information to meet its needs.

(2) Recipients are authorized to submit requests for reimbursement at least monthly when letters-of-credit are not used. ERDA shall not require more than the original and two copies of the Outlay Report and Request for Reimbursement for Construction Programs.

2. Profit making organizations, individuals, and foreign organizations.

(a) *Standard Form 1034, Public Voucher.* Payment in advance or reimbursement by Treasury check. Profit making organizations and individuals should use the Standard Form 1034, Public Voucher and Standard Form 1035, Continuation Sheet, when requesting payment either in advance or reimbursement by Treasury check. The request for payment should include the cummulative costs incurred by budget cost element through the billing period, the amount previously received from ERDA, either in advance or as a reimbursement, and the currently requested amount. An original and two copies should be submitted.

(b) *Payment by letter of credit.* If payment is made by letter of credit, then the Report of Federal Cash transactions described in c.1.(b) will be submitted quarterly with a final cost report as described in c.2.

e. *Additional financial information.* When ERDA needs additional information in using these forms or more frequent reports, the following shall be observed:

1. When additional information is needed to comply with legislative requirements, ERDA shall issue instructions to require recipients to submit such information under the "Remarks" section of the reports.

2. When necessary to meet specific program needs ERDA shall submit the proposed reporting requirements to the Financial Management Branch, Budget Review Division, Office of Management and Budget for approval prior to submission of the reports for clearance under the provisions of OMB Circular A-40.

3. When ERDA has determined that a recipient's accounting system does not meet the Standards for Financial Management contained in section 210, additional pertinent information to further monitor grants and other agreements may be obtained upon written notice to the recipient until such time as the system is brought up to standard.

4. ERDA in obtaining information as in paragraphs a., b., and c. above, must comply with report clearance requirements of the Office of Management and Budget Circular No. A-40, as revised.

f. *Deletion of reporting items.* ERDA may shade out any line item on any report that is unnecessary for decision-making purposes.

g. *Acceptance of machine reports.* ERDA will accept the identical information from the recipients in machine usable format or computer printouts in lieu of prescribed formats.

h. *ERDA computer outputs.* ERDA may provide computer outputs to recipients when it will expedite or contribute to the accuracy of reporting.

i. *Authority to reproduce forms.* ERDA may reproduce the forms prescribed in this section. The forms for reproduction purposes can be obtained from the Office of Management and Budget.

j. *Financial reporting forms matrix.*

Type of recipient	Proposal budget format	Payment financial method	Monthly financial submissions	Quarterly submission	Final financial submission
State and local Governments...	FMC 74-7, Attachment M application for Federal assistance (nonconstruction) pt. III—Budget or Optional Form 60 in 41 CFR 1-16.902 at States option.	Letter of credit..... Advance by Treasury check.	None..... RAR [3] (Block 12).	RFCT [1]..... RAR RFCT.	RFCT FSR.[2] RFCT FSR.
Educational, hospitals, and other nonprofit institutions.	No prescribed format, may use: 1. Optional Form 60 in 41 CFR 1-16.902; 2. Sample budget in ERDA guide for submission of research proposals from educational institutions.	Reimbursement by Treasury check.	RAR (Block 11)...	None.....	None.
Profit making organizations and individuals.	Use optional form 60 in 41 CFR 1-16.902.....	Letter of credit..... Advance by Treasury check. Reimbursement by Treasury check.	None..... SF-1034 [5]..... SF 1034.....	RFCT..... SF-1034..... SF-1034.....	FSR final cost report.[4] SF-1034 (final voucher) final cost report. SF-1034 final cost report.
Applicable section in ERDA-FAM.	Sec. 301.....		Sec. 807.....	Sec. 805.....	Sec. 805.

[1] RFCT means "Report of Federal Cash Transactions" (SF-272).
[2] FSR means "Financial Status Report" (SF-269).
[3] RAR means "Request for Advance or Reimbursement" (SF-270).
[4] Final cost report. See section 805 c. for explanation.
[5] SF 1034 means Standard Form 1034, Public Voucher. (See section 805 d.2. for explanation.)

806 Revision of financial plans.

a. *Purpose.* This section sets forth criteria and procedures prescribed by OMB Circular No. A-110, Attachment J, AND FMC 74-7, Attachment K, to be followed by ERDA in requiring institutions of higher education, hospitals, other nonprofit organizations, and State and local governments under grants and cooperative agreements to report deviations from financial plans and to request approvals for financial plan revisions. This section is not mandatory for grants and cooperative agreements with profit making organizations, individuals, or foreign organizations, but may be imposed where useful.

b. *Financial plan/budget.* The financial plan is the financial expression of the project or program as approved during the application and/or award process. It may include either the Federal and non-Federal share, or only the Federal share. It should be related to performance for program evaluation purposes whenever appropriate.

c. *Prior approvals (nonconstruction).* For nonconstruction awards, recipients shall immediately request approvals from ERDA when there is reason to believe that within the next seven days a revision will be necessary for the following reasons:

1. Changes in the scope or the objective of the project or program.

2. The need for additional ERDA funding.

3. The transfer of amounts budgeted for indirect cost to absorb increases in direct costs or vice versa, if approval is required by ERDA. Normally, ERDA will not require such prior approval.

4. (a) *For educational, hospitals, other nonprofit organizations.* The expenditures as require approval in accordance with FMC 73-8, "Cost Principles for Educational Institutions." For all other awards, approval requirements for other items of expenditures may be imposed if they are consistent with those in FMC 73-8. No other requirements for specific items may be imposed unless a deviation has been approved by the Office of Management and Budget.

(b) *For State and local governments.* Revisions pertaining to the addition of items requiring approval in accordance with the provisions of FMC 74-4.

5. Recipients plan to transfer funds allotted for training allowances (direct payments to trainees) to other categories of expense. This is not applicable to State and local governments.

d. *Approval to subcontract or transfer work.* None of the substantive programmatic work under a grant or other agreement may be subcontracted or transferred without prior approval of ERDA. This provision does not apply to the purchase of supplies, material, equipment, or general support services. The foregoing is not applicable to State and local governments.

e. *Fund transfers among direct cost categories.* Although ERDA may restrict transfers of funds among direct cost categories for awards in which the Federal share exceeds $100,000 when the cumulative amount of such transfers exceeds or is expected to exceed five percent of the total budget as last approved by ERDA. ERDA awarding officers should rarely impose such a restriction. The same criteria shall apply to the cumulative amount of transfers among programs, functions, and activities when budgeted separately for an award, except that ERDA shall permit no transfer that would cause any Federal appropriation, or part thereof, to be used for purposes other than those intended.

f. *Approval not required for other changes.* All other changes to nonconstruction budgets, except for the changes described in paragraphs c. and h., do not require approval. This includes the use of recipient funds in furtherance of program objectives over and above the recipient minimum share included in the approved budget.

g. *Prior approvals (construction).* For construction awards, recipients shall request prior approvals promptly from ERDA for budget revisions wherever:

1. The revision results from changes in the scope or the objective of the project or program, and

2. The revision increases the budget amounts of ERDA funds needed to complete the project.

h. *Fund transfers between nonconstruction and construction work.* When ERDA makes an award that provides support for both construction and nonconstruction work, the ERDA may require the recipient to request prior approval from ERDA before making any fund or budget transfers between the two types of work supported.

i. *Notice of excess funds.* For both construction and nonconstruction awards, ERDA shall require recipients to notify promptly whenever the amount of Federal authorized funds is expected to exceed the needs of the recipient by more than $5,000 or five percent of the Federal award, whichever is greater. This notification will not be required if applications for additional funding are submitted for continuing grants or contracts.

j. *Forms.* When requesting approval for budget revisions, recipients shall use the budget forms that were used in the application unless a letter request will suffice.

k. *Timing of ERDA approval.* Within 30 calendar days from the date of receipt of the request for budget revisions, ERDA shall review the request and notify the recipient whether the budget revisions have been approved. If the revision is still under consideration at the end of 30 calendar days, ERDA shall inform the recipient in writing of the date when the recipient may expect the decision.

807 Payment methods.

a. *Purpose.* This section sets forth the methods prescribed by OMB Circular No. A-110, Attachment I, and FMC 74-7, Attachment J, which is being applied to making payments to all prime recipients whether under a grant or cooperative agreement. These methods will minimize the time elapsing between the disbursement by these recipients and the transfer of funds from the United States Treasury to these recipients whether such disbursement occurs prior to or subsequent to the transfer of funds.

b. *Definitions.* Payments can be made to prime recipients through a letter-of-credit, an advance by Treasury check or a reimbursement by Treasury check. The following definitions apply for the purpose of this section:

1. *Letter-of-credit.* A letter-of-credit is an instrument certified by an authorized official of ERDA that authorizes a prime recipient to draw funds when needed from the Treasury, through a Federal Reserve bank and the recipient's commercial bank, in accordance with the provisions of Treasury Circular No. 1075, as revised. See ERDA Manual Appendix 1101, Part IV, Section A, Advanced Payment and Letter of Credit Procedures.

2. *Advance by Treasury check.* An advance by Treasury check is a payment made by a Treasury check to a recipient upon its request before outlays are made by the recipient, or through the use of predetermined payment schedules.

3. *Reimbursement by Treasury check.* A reimbursement by Treasury check is a Treasury check paid to a recipient upon request for reimbursement from the recipient.

c. *Letter of credit method.* Except for construction grants and other construction agreements for which optional payment methods are authorized, as described in paragraph e., the letter-of-credit method shall be used by ERDA if all of the following conditions exist:

1. If there is or will be a continuing relationship between a recipient and ERDA for at least a 12-month period and the total amount of advance payments expected to be received within that period from ERDA is $250,000 or more, as prescribed by Treasury Circular No. 1075. For joint funded projects the Treasury has authorized a dollar criteria of $120,000.

2. If the recipient has established or demonstrated to ERDA the willingness and ability to maintain procedures that will minimize the time elapsing between the transfer of funds and their disbursement by the recipient.

3. If the recipient's financial management system meets the standards for fund control and accountability prescribed in Section 210.

d. *Advance by Treasury check method.* The method of advancing funds by Treasury check shall be used, in accordance with the provisions of Treasury Circular No. 1075, when the recipient meets all of the requirements specified in paragraph c., above, except those in subparagraph c.1.

e. *Reimbursement by Treasury check method.* The reimbursement by Treasury check method shall be the preferred method if the recipient does not meet the requirements specified in subparagraph c.2. and c.3. above. At ERDA's option, this method may also be used on any construction agreement, or if the major portion of the program is accomplished through private market financing or Federal loans, and the Federal assistance constitutes a minor portion of the program. When the reimbursement method is used, ERDA shall make payment within thirty days after receipt of the billing, unless the billing is improper.

f. *Consolidated letter of credit.* When the letter-of-credit procedure is used, the recipient shall be issued one consolidated letter-of-credit whenever possible to cover anticipated cash needs for all grants and other agreements awarded by ERDA. Likewise, to the extent possible, when the advance by Treasury check method is used, advances should be consolidated (pooled) for all grants and other agreements made by ERDA to that recipient.

g. *Withholding of payments.* Unless otherwise required by law, ERDA shall not withhold payments for proper charges made by recipients at any time during the project or program period unless:

1. A recipient has failed to comply with the program objectives, award conditions, invention reporting requirements, or Federal reporting requirements; or

2. The recipient is indebted to the United States, and collection of the indebtedness will not impair accomplishment of the objectives of a project or program sponsored by the United States.

Under such conditions, ERDA may, upon reasonable notice, inform the recipient that payments will not be made for obligations incurred after a specified date until the conditions are corrected or the indebtedness to the Federal Government is liquidated.

808 Expenditures under ERDA grants and cooperative agreements.

a. *Purpose.* This section provides guidance regarding the basis for reimbursing all recipients as indicated for direct and indirect costs under grants and cooperative agreements.

b. *Basic principles.* The allowability of costs for which ERDA funds may be expended under ERDA grants and cooperative agreements shall be determined in accordance with the following cost principles:

1. *Federal cost principles.* (a) OMB Circular A-21 reissued as FMC 73-8 provides cost principles and policy guides to be applied by Federal agencies supporting research and development and training and other educational services under grants and contracts with educational institutions.

(b) OMB Circular A-87 reissued as FMC 74-4 provides comparable principles and guides affecting Federal awards to State and local government agencies (excluding institutions of higher education, hospitals, and school districts).

(c) Subpart 1-15.2 of the Federal Procurement Regulations as supplemented by ERDA Procurement Regulation 9-15.205-3, Bidding Costs, and 9-15.205-35, Research and Development Costs, provides comparable principles and procedures for use in cost-reimbursement type supply and research contracts with commercial organizations. Such principles and procedures are applicable to grants to individuals and profit making organizations. These same cost principles are also applicable to nonprofit organizations until government-wide cost principles for these organizations are established.

(d) One of the cost principles referenced in (a) or (c) above will be applicable to hospitals depending on whether the hospital is classified as an educational institution, nonprofit, or a profit making organization.

2. *Applicability to ERDA cooperative agreements.* The cost principles are applicable to cooperative agreements to the extent that ERDA funds are involved. The cost principles may be used as a general guide to pricing when evaluating the costs to be reimbursed by nonfederal funds. Federal cost principles need not, and should not be rigidly applied to nonfederal funds. Areas of potential disagreement should be negotiated and settled prior to award. See Section 503c.

3. *Cost accounting standards.* Public Law 91-379, 50 U.S.C. App. 2168, as implemented by the regulations of the Cost Accounting Standards Board (See 4 CFR 331 et seq.) are not applicable to ERDA grants and cooperative agreements issued pursuant to this Manual.

4. *Cost or pricing data.* The requirements of Pub. L. 87-653 regarding the submission and certification of cost or pricing data are not mandatory for grants and cooperative agreements. However, explanatory data and supporting schedules, stated in sufficient detail to facilitate a meaningful review, and evaluation of the estimated cost proposal, will generally be required.

5. *Grantee policies.* Where a grantee has a formal policy as to the allowability of costs which differs from the policy stated herein, the ERDA policy is to be considered the minimum requirement. Where the grantee has requirements which are more stringent than those stated herein, he must adhere to at least the minimum ERDA requirement.

6. *Basic considerations.* In addition to the basic considerations concerning such factors as the general allowability and reasonableness of costs and the allocability to specific cost objectives contained in the applicable Federal cost principles, the following apply to ERDA grants:

(a) *Maximum obligation.* The maximum obligation of ERDA for support of the project will not exceed the amount awarded in the grant instrument, as amended.

(b) *Pre-award costs.* In amplification of Section J.25 of Attachment A to FMC 73-8 and comparable sections of the other Federal cost principles, expenditures may not be charged against ERDA funds prior to the effective date of the grant unless specifically provided for in the grant award.

(c) *Post-award costs.* Grant funds may not be expended subsequent to the expiration date of the grant except to liquidate valid commitments which were made on or before the expiration date such as those minimum commitments necessary for the physical preparation and submission of the final report.

c. *Direct costs.* 1. *General.* This subsection implements FMC 73-8 and therefore is applicable only to grants and cooperative agreements with educational institutions. Subject to the basic considerations in paragraph a.6. direct costs as defined in the applicable Federal principles may be chargeable to ERDA grants or cooperative agreements if considered allowable under the "Standards for Selected Items of Cost" in those principles, as amplified by this subsection. The "Selected Items of Cost" which the applicable Federal cost principles state are unallowable, or allowable only if approved by the awarding agency, are not allowable charges against an ERDA grant or cooperative agreement unless specifically approved in the award instrument, as amended.

2. *Salaries and wages—compensation for personal services.* (a) *Salary supplementation.* (1) *Professorial and professional personnel.* The general prohibition against salary supplementation contained in subsection J.7.i of FMC 73-8 applies to ERDA research grants with educational institutions.

(2) *Nonprofessional personnel.* When all of the salary of nonprofessional personnel is fully assigned to projects supported by ERDA grants, overtime may be charged to the grants on which the overtime was worked under the conditions (i) through (iv) below. When the salary of nonprofessional personnel not fully assigned to ERDA grants is charged partly to grant funds and partly to other funds, the premium pay amount should be prorated in accordance with the time spent on all activities except for the following situations when they apply specifically to ERDA work:

(i) When necessary to cope with emergencies, such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(ii) When by indirect labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(iii) In the performance of tests, industrial processes, laboratory procedures, loading or unloading of transportation media, and operations in flight or afloat, which are continuous in nature and cannot reasonably be interrupted or otherwise completed; or

(iv) When lower overall cost to the Government will result.

(b) *Graduate research assistants.* Graduate students actually employed as research assistants may be paid salaries (not stipends), furnished remission of tuition, or both, depending on the institution's working arrangements with the graduate research assistant and within the guidelines of institutional policy, consistently applied.

3. *Staff (fringe) benefits.* Staff (fringe) benefit payments are allowable in accordance with the applicable Federal cost principles.

4. *Travel.* (a) *General.* Travel costs of project personnel, including transportation, lodging, subsistence, and incidental expenses, are allowable in accordance with the applicable Federal cost principles as amplified herein.

(b) *Travel accommodations.* Except as provided in section J.44.c. of FMC 73-8 and comparable sections of the other Federal cost principles, the difference in cost between first-class air accommodations and less than first-class air accommodations is unallowable. A train, bus, or other surface carrier may be used in lieu of or as supplement to air travel at the lowest first-class rate by the transportation facility used. However, if such travel could have been performed by air, the allowance will not normally exceed that for jet economy air fare.

(c) *Domestic travel.* Expenditures for domestic travel may not exceed $500 or 125 percent of the amount allotted for such travel in the grant budget, as amended, whichever is greater, without prior ERDA approval.

(d) *Foreign travel.* Expenditures for foreign travel are allowable only as prescribed in Section 818, Foreign travel.

(e) *Dependent travel.* Travel costs of dependents of project personnel are not allowed without prior ERDA approval, which gen-

erally will be granted only under the following circumstances:

(1) The individual scientist is a key person whose full-time presence is essential to the effective performance of the project;

(2) His residence in a foreign country for a continuous period of at least six months is essential to the effective performance of the project; and

(3) The payment of a travel allowance for dependents is consistent with the policies of the grantee institution.

5. Permanent (nonexpendable) equipment.

(a) *General.* Ordinarily, a grantee is expected to have the facilities and equipment necessary to carry out projects supported by ERDA grants. Additional permanent (nonexpendable) equipment and accessories required for ERDA-supported projects may be purchased or rented with grant funds if allowable under Section 814 f.

(b) *Limitation on total expenditures.* Expenditures for permanent equipment may not exceed 125 percent of the amount allocated in the grant budget, as amended, without prior ERDA approval.

6. *Supplies, materials, and expendable equipment.* Expendable equipment and supplies such as office or laboratory supplies, may be purchased with grant funds, to the extent that they are required for successful completion of the grant-supported project.

7. *Alterations and renovation.* Expenditures for minor alterations or renovation of existing facilities essential to the conduct of a grant-supported project are allowable only if prior ERDA approval has been granted in the award budget.

8. *Other allowable costs.* This section summarizes other costs which normally are allowable as an expenditure from ERDA grant funds, usually under the "other direct cost" category.

(a) *Audio-visual materials.* Films or other audio-visual materials needed for science education projects may be purchased with prior ERDA approval. Such materials and/or related equipment may be rented with grant funds if the grantee institution would normally charge such costs to similar non-ERDA-supported projects.

(b) *Books and periodicals.* Reference books and periodicals essential to the conduct of the project may be purchased with grant funds. When the project is completed, it is expected that any special purpose books or periodicals acquired by grant funds will be retained in the department or main library of the grantee institution for future use. Grant funds may not be used for direct purchase of books to be placed on library shelves for the general use of either staff or students.

(c) *Communications.* Costs resulting from local and long distance telephone calls, telephone surveys, telegrams, postage, etc., necessary to the project, and not treated as indirect costs, are allowable as direct costs if the grantee consistently makes similar direct charges to non-ERDA supported projects.

(d) *Computer (ADPE) costs.* The cost of automatic data processing services, including rental of equipment or depreciation on grantee-owned equipment, is an allowable direct cost expenditure with the provisos concerning ADPE leasing costs in such other Federal cost principles as may be applicable. The acquisition of ADP equipment with grant funds, whether by outright purchase, rental-purchase agreement, or other method of purchase is subject to the requirements concerning other nonexpendable property in Section 814.

(e) Consultant services. (1) *Outside consultants.* The use of grant funds for the payment of fees to consultants or to technical personnel not employed by the grantee is allowable for short periods for services which are essential to the project and cannot be provided by persons receiving salary support under the grant or otherwise are compensated for their services. The fees to be provided should be commensurate with the time devoted to the project and consistent with the grantee's usual rate of compensation for consultants. Such compensation is to be treated as an "other direct cost" rather than "salary". The specific circumstances, the grantee's policies on such matters, any special preparation required on the part of the individual, and his qualifications should be taken into consideration in determining the amount of such fees.

(2) *In-house consultants.* Grants funds may not be used to pay consultant fees to employees of the grantee except under the conditions specified in FMC 73-8, subsection J.7.i. or comparable section of other applicable Federal cost principles.

(3) *Federal employees.* Employees of the Federal government (other than ERDA) may be utilized as lecturers or staff members and may receive compensation and/or expenses if they obtain prior approval from their agencies to participate and if service to the project are performed outside their regular working hours or while they are on leave status from official duties. Under no circumstances may ERDA employees receive compensation for an ERDA-supported project.

(f) *Insurance costs.* Insurance is usually treated and reimbursed as an indirect cost. In certain situations, however, where special insurance needs to be purchased due to a peculiar project risk, the premiums may be charged as a direct cost with the restrictions stipulated in the applicable cost principles. Such premiums might include those on hazard, malpractice, or other liability insurance to cover personnel directly connected with the grant-supported project or to cover esoteric or one of a kind equipment supported by grants if such practice is in accordance with organizational policy. Cost of accident insurance to cover participants in research is allowable as a direct cost.

(g) *Printing and related costs.* If appropriate to the specific project, costs of printing and distributing project announcements, brochures, and application forms should be itemized in the proposal budget. ERDA approval will be indicated in the grant budget.

(h) *Publication costs.* Costs of preparing and publishing the results of ERDA-supported research, including costs of reports, reprints, page charges, and necessary illustrations, are allowable charges against the grant. In the event that valid commitments for publication have been incurred, but it is not possible to effect an actual payment for such charges within 90 days after completion of the expiration date the grantee may transfer from the grant account to an institutional account an amount equal to the commitment and retain such funds for payment of the publication charge when it is rendered. If actual publication costs are less than the commitment, the excess funds may be retained by the recipient for use in its energy related research programs; if more than the commitment, the excess will not be reimbursed by ERDA.

(i) Relocation costs. (1) Provides that a proposal for ERDA support specifically indicates that the grantee intends to hire a named individual for full-time work on the project and such recruitment action is not disapproved by the grant terms, relocation costs may be charged to an ERDA grant as in "other direct cost" in accordance with the applicable Federal cost principles. Otherwise specific ERDA approval must be obtained.

(2) Normally ERDA will give favorable consideration to such action only if the prospective employee or visiting staff member is (1) essential to the project on a full-time basis for a continuous period of at least six months and, (2) is regularly located at a place sufficiently removed from the project site that his employment necessitates the change. The amount of actual reimbursement should be in accordance with the grantee's established policy or practice which (1) is in conformance with the applicable Federal cost principles, (2) has been approved either by the cognizant Federal audit agency or ERDA.

(j) *Space rental.* Normally the grantee is expected to make available appropriate facilities without direct charge to grant funds. However, on occasion, it is necessary to utilize facilities not under the control of the grantee. Rental of space off-site may be allowed for example, for an education project where for the benefit of the participants, the project must be held at locations other than the campus or, for a research project, if laboratory facilities or other work areas of a type or coverage not normally available within the holdings of the grantee are required. If justification for the rental of space is given in the proposal, and space rental costs are included in the grant budget, rental charges may be made in conformance with grantee policies and in the same manner that similar charges are made to any account.

(k) *Specialized service facilities.* The costs of institutional services involving the use of highly complex and/or specialized facilities such as electronic computers, cyclotrons, wind tunnels reactors or ships are allowable as outlined in section 5.37 of FMC 73-8 or comparable section in such other Federal cost principles as may be applicable. Requests for computer time, etc., should be itemized as to cost per hour or per day applicable to intramural and extramural activities. The type of facility or machine, the number of hours of anticipated usage and the relationship to the quality of the project must also be stated in the proposal. The extent to which funds from other Federal sources are involved in the establishment or maintenance of the facility should be taken into consideration in computing usage charges in order to assure that double payment for the service is not charged to the Government.

(l) *Contracts under grants or consortia grants.* If the grant instrument authorizes the grantee institution to contract part of the substantive project effort to another organization, or if the grant is made to one institution on behalf of a consortium cost associated with the third-party participation (including any applicable indirect cost) if otherwise allowable, will be summarized in the "other direct cost" category.

d. Indirect costs. 1. *Policy.* It is ERDA policy that a U.S. recipient is entitled to full reimbursement from award funds for the indirect costs allocable to the Federal share of the project, in accordance with applicable Federal cost principles and standards as amplified herein, with the following exceptions:

(a) Grants awarded to individuals;

(b) Grants awarded solely for the support of travel, equipment, construction or facilities.

(c) Grants in which ERDA support is exclusively in the form of fellowships, traineeships, or other fixed amounts such as cost-of-education allowances; and

(d) Grants involving special programs, such as those in (a), (b), or (c) above, or unusual circumstances under which full indirect costs are considered inappropriate. ERDA normally will not reimburse grantees for indirect costs associated with such projects. In unusual circumstances, where considered appropriate, or in connection with

certain specific programs, ERDA may provide a special allowance to assist the grantee institution in defraying administrative costs associated with the project. Any action taken under this subparagraph (d) will be consistent with the policy in Section 205, Cost Participation.

(e) Grants to foreign organizations.

(f) Reimbursement of indirect costs under cooperative agreements is a matter which may be negotiated to meet the reasonable needs of the business arrangement. See Section 621 b., and c.2.(c).

e. Establishment of indirect cost rates. 1. *General.* Office of Management and Budget Circular No. A–88 reissued as FMC 73–6 provided for the assignment of cognizance to single departments and agencies for conducting indirect cost negotiations and audits at single educational institutions. Attachment A to the Circular assigned to the Department of Health, Education, and Welfare the responsibility for indirect cost negotiations and audits at most educational institutions. FMC 73–6 prescribed that the negotiated rate would be accepted by all Federal agencies. FMC 73–2 provides for cross-servicing arrangements with respect to State and local governments.

2. *New grantees.* An institution or organization submitting a proposal for ERDA support, which does not have an indirect cost rate approved by a cognizant Federal negotiating agency should also submit to ERDA a separate indirect cost proposal based on actual cost experience for the most recent time period available. Such proposal should consist of the following:

(a) A statement indicating the method used in separating component activities such as research, instruction, and other organizational activities.

(b) A statement indicating the basis for distributing indirect costs to such component activities.

(c) A computation of the indirect cost rate based on the principles outlined in the applicable Federal cost principles.

(d) A copy of the organization's audited financial statements and other supporting information for the particular period. In instances where proposed grant activities are to be performed in whole or substantial part at an off-campus or non-headquarters location, a separate indirect cost proposal applicable thereto should be submitted.

f. Proposal for ERDA support. 1. *General.* Proposals for ERDA support of projects other than those excepted in c.1., should include an amount for indirect costs calculated by applying the indirect cost rate(s), approved by the cognizent Federal negotiating agency which approved the rate(s), the type of rates (e.g., pre or post determined) the date of such approval, and the time period(s) applicable to such rate(s). In the event the grantee voluntarily elects in advance to request less than full reimbursement for the indirect costs to which it otherwise would be entitled on the basis of the direct costs in the proposal, the Authorized Institutional Representative must expressly indicate that election on the proposal budget or any modification thereof. Otherwise, the ERDA grant will provide an allowance for indirect costs calculated in accordance with f.

2. *Off-campus (off-site) activities.* In the event the proposed project contemplates work to be performed in an environment or in a manner which would generate a significantly different level of indirect costs then the normal work of the organization, such as off-campus (off-site) projects and instances involving the contracting out of substantial elements of the project activities supported by ERDA, the proposal should so state. If the negotiated indirect cost agreement provides for the conditions under which separate indirect cost rates would be applicable under such circumstances, the proposal should so state.

3. *Consortium grants.* If the proposal is for a consortium grant, the proposed amount for indirect costs to the grantee should be as in any other proposal by that institution. Indirect cost amounts for cooperating institutions should be computed using the approved rates for those institutions, but should be shown in the "other direct cost" category of the composite proposal budget.

g. ERDA calculation of indirect cost amount. 1. *General.* ERDA grant and cooperative agreement awards will provide a single award amount which indicates funds for both direct and indirect costs. The amount included for indirect costs generally will be determined by applying the approved indirect costs rate(s) to the appropriate indirect cost base, as outlined below. If the prospective recipient does not have an approved rate, and has submitted an indirect cost proposal containing data which are insufficient to enable ERDA to make an indirect cost determination, a grant or cooperative agreement may be awarded for direct costs only, pending determination of an appropriate indirect cost rate or allowance. Where such rate subsequently is established, the award will be amended to provide for indirect costs at the established rate.

2. *Institutions of higher education.* (a) Where an institution of higher education and the cognizant Federal negotiating agency have agreed on projected indirect cost rates for current or future time periods, ERDA will calculate the indirect cost portion of the award by applying to the appropriate time frames (the recipient's fiscal year(s)) within the grant period the agreed upon projected rates known to ERDA at the time the award amount is determined. If there is only a single such approved rate, ERDA will appiy that rate to the entire period of support. However, if an institution has negotiated different rates for different time periods, either as "predetermined fixed rates" or as "negotiated fixed rates with carry forward provisions" as prescribed in subsections g.4 or g.5 of FMC 73–8, ERDA will apply each rate to the applicable portion of the estimated period of support. In such cases, unless it would be clearly inappropriate to do so (as for example, in projects involving activities to be performed solely during the summer months or in those cases where the recipient can demonstrate in its proposal that the charges for salaries and wages will not be straight line), ERDA will assume that the direct cost base expenditures to which the project supported by the grant will be performed.

(b) Where the time period covered by the negotiating agreement has expired (or will expire prior to the expiration date of the award), ERDA will continue to use the last approved rate (whether "predetermined" or "fixed with carry forward provisions") in calculating indirect costs even though the institution may have proposed but has not received Audit approval for different rate.

3. *Other grantees.* For educational institutions which do not have approved projected indirect cost rates for current or future time periods and for all non-academic organizations, ERDA will continue to apply the latest available approved rate, based on actual past cost experience, to the appropriate direct cost base, regardless of when the base costs are expected to be incurred. By statute (Public Law 87–638; 41 U.S.C. 254a) predetermined fixed rates are available only to universities, colleges, and other educational institutions. Grants to other nonprofit organizations and to profit-making firms will utilize the latest available rate, based on actual past cost experience, as a maximum provisional rate subject to downward adjustment only.

4. *Alternative approaches.* In special cases where it is determined that the use of a fixed indirect cost rate would be inappropriate under the circumstances, ERDA may use alternative methods of providing for indirect costs. These methods include (1) use of a maximum provisional indirect cost rate subject only to downward adjustment when actual cost data become available, or (2) lump sum dollar allowance for indirect costs or for administrative expenses in lieu of indirect costs. The maximum provisional rate is standard ERDA practice in grants to commercial organizations and to certain nonprofit organizations.

5. *Predetermination of rates.* Except in situations discussed in section f.3. and f.4. above, the indirect cost rates used by ERDA in calculation of award amounts generally will be considered as "predetermined" fixed rates for ERDA grant award purposes. As such, they will not be effective retroactively, nor subject to adjustment either during or after the grant period unless specifically provided otherwise by the grant or subsequent amendments. If a grant is amended to provide additional funding support the grant budget for the new support will reflect the indirect cost base and rate appropriate to the new support period.

h. Grantee reimbursement for indirect costs.

1. *Institutions of higher education.* Universities and colleges (or "foundations" which administer awards on their behalf) may charge ERDA grants for the ERDA share of the indirect costs associated with a grant-supported project by the method which best meets their own financial management system, provided that such method is consistently applied and is consistent with the applicable Federal cost principles and generally accepted accounting practices. Generally, such method will be one of the following:

(a) Those with approved projected "predetermined fixed rates" or "negotiated fixed rates with carry-forward provision" may charge indirect costs to the grant at the appropriate approved rate in effect based upon the recipient's fiscal year during the particular time period, regardless of the rates, if any, specified in the proposal.

(b) Those which do not have approved projected rates of any kind, or who prefer this approach, may charge indirect costs at the single rate specified in the grant award.

2. *All other recipients.* Recipients other than institutions of higher education and individuals may charge indirect costs only at the single rate specified in the grant award.

3. *Consortium grants.* The grantee institution should reimburse cooperating institutions at their approved indirect cost rates, except in the case of educational institutions where reimbursement for indirect costs shall be made in accordance with h.1. of this section.

4. *Adjusting for differences between estimated and actual indirect costs.* Although it is the intent of ERDA to provide full reimbursement for the Federal share of indirect costs, the estimated amount included in an award for indirect costs may not correspond to that actually incurred by the recipient. The factor most often responsible for this occurrence is that the amount estimated in the award for the indirect cost base items proves not to be in accord with the actual expenditures by the recipient for these cost items. It may also occur when a grant period overlaps two or more time periods for which different approved indirect cost rates are authorized for charging indirect costs under the procedures outlined above. In such cases the indirect costs base expenditures may often not be incurred during the period assumed by ERDA in calculating estimated indirect cost amounts. While great flexibility is afforded

grantees in adjusting line item expenditures under ERDA grants to coincide with operational realities, total charges to grants may not exceed the total grant amount, as amended. Should the actual indirect costs chargeable to an ERDA grant exceed the amount estimated by ERDA for this purpose, it is the grantee's responsibility to determine which direct or indirect cost elements to reduce or absorb to remain with the total grant amount. Should actual allowable indirect costs prove less than estimated, the grantee may use available funds as appropriate to defray other costs allowable under the grant.

809 Program Income.

a. *Purpose.* This section sets forth standards prescribed by OMB Circular A-110, Attachment D and FMC 74-7, Attachment E, applicable to institutions of higher education, hospitals, other nonprofit organizations and State and local governments regarding program income under grants and cooperative agreements. This section is not mandatory for grants and cooperative agreements with profit making organizations, individuals, or foreign organizations but may be used as guidance where useful.

b. *Definition.* The standards set forth in this section shall be applied in requiring recipient organizations to account for program income related to projects financed in whole or in part with ERDA funds. Program income represents gross income earned by the recipient from the ERDA supported activities. Such earnings exclude interest earned on advances and may include, but will not be limited to, income from service fees, sale of commodities, usage or rental fees, royalties on patents and copyrights, and for State and local governments only, sale of assets purchased with grant funds.

c. *Interest.* Interest earned on advances of ERDA funds shall be remitted to ERDA except for interest earned on advances to States or instrumentalities of a State as provided by the Intergovernmental Cooperation Act of 1968 (Public Law 90-577).

d. *Proceeds from sale of property.* Proceeds from the sale of real and personal property either provided by the Federal Government or purchased in whole or in part with Federal funds shall be handled in accordance with Section 814 pertaining to property management.

e. *Royalties.* Unless the grant or other agreement provides otherwise, recipients shall have no obligation to the Federal Government with respect to royalties received as a result of copyrights or patents produced under the grant or other agreement (see Section 814).

f. *All other program income for recipients other than profit making organizations and individuals.* Unless otherwise provided in the award all other program income earned during the project period shall be retained by the recipient and in accordance with the grant or other agreement, shall be:

1. Added to funds committed to the project by ERDA and recipient organization and be used to further eligible program objectives;

2. Used to finance the non-Federal share of the project when approved by ERDA; or

g. *All other income for profit making organizations and individuals only* All other income earned during the project period shall either be used to reduce the amount of support awarded by ERDA or returned to ERDA by check made payable to the U.S. Treasury at the end of the award period unless otherwise provided in the award.

810 Fee and Profit Under ERDA Grants and Cooperative Agreements.

a. *Purpose.* This section establishes policy regarding payment of fee and/or profit under ERDA grants and cooperative agreements.

b. *Policy.* No fee or profit shall be paid to prime recipients under grants or cooperative agreements. Payment of fee or profit to subcontractors will be in accordance with Section 205a.

c. *Background.* Fee or profit should be paid to contractors, in addition to full payment of cost as both an incentive to and reward for producing goods and services ERDA requires for delivery to and consumption by itself. When ERDA awards grants and cooperative agreements, its intention is to support, stimulate, or otherwise assist the performer to achieve objectives established by the performer. In many cases, performers propose substantial financial involvement on their part to motivate ERDA to provide complementary support. The ERDA support is, therefore, itself the incentive and reward to performers. It would be inappropriate to provide for payment of fee or profit to a performer to motivate the performer to achieve its own stated objectives, especially where there is cost participation by the performer.

811 Assignment of grant paymnts to financial institutions. [Reserved]

812 Successor in interest and change of name agreements. [Reserved]

813 Property management standards for State and local governments.

a. *Purpose.* This section sets forth uniform standards prescribed by Federal Management Circular 74-7, Attachment N, governing the utilization and disposition of property furnished by the Federal Government or acquired in whole or in part with Federal funds by State and local governments only. ERDA shall require State and local governments to observe these standards under grants from the Federal Government and shall not impose additional requirements unless specifically required by Federal law. The grantee may use their own property management standards and procedures as long as the provisions of this attachment are included. This section is not mandatory for cooperative agreements with State and local governments but may be used for guidance where useful.

b. *Definitions.* The following definitions apply for the purpose of this attachment:

1. *Real property.* Real property means land, land improvements, structures and appurtenances thereto, but excluding movable machinery and equipment.

2. *Personal property.* Personal property means property of any kind except real property. It may be tangible—having physical existence, or intangible—having no physical existence, such as patents, inventions, and copyrights.

3. *Nonexpendable personal property.* Nonexpendable personal property means tangible personal property having a useful life of more than one year and an acquisition cost of $500 or more per unit. A grantee may use its own definition of nonexpendable personal property provided that such definition would at least include all tangible personal property as defined above.

4. *Expendable personal property.* Expendable personal property refers to all tangible personal property other than nonexpendable property.

5. *Excess property.* Excess property means property under the control of any Federal agency which, as determined by the head thereof, is no longer required for its needs for the discharge of its responsibilities.

c. *Real property.* The award shall prescribe requirements for grantees concerning the use and disposition of real property.

The award may provide for an unqualified title in the recipient, unqualified title in ERDA, or a qualified title as appropriate to best achieve ERDA's statutory and program objectives.

d. *Federally-owned nonexpendable personal property.* The award shall prescribe requirements for recipients concerning the ownership, use, and disposition of nonexpendable personal property furnished or acquired with Federal funds under the award.

1. *Nonexpendable personal property acquired with Federal funds.* When nonexpendable personal property is acquired by a grantee wholly or in part with Federal funds, the award may provide for an unqualified title in the recipient, unqualified title in ERDA, or a qualified title as appropriate to best achieve ERDA's statutory and program objectives.

(a) The grantee shall retain the Government property acquired in the grant program as long as there is a need for the property to accomplish the purpose of the grant program whether or not the program continues to be supported by Federal funds. When there is no longer a need for the property to accomplish the purpose of the grant program, the grantee shall use the property in connection with other Federal grants it has received in the following order of priority:

(1) Other grants of ERDA needing the property.

(2) Grants of other Federal agencies other than ERDA needing the property.

(b) When the grantee no longer has need for Government property in any of its Federal grant programs, the property may be used for its own official activities in accordance with the following standards:

(1) Nonexpendable property with an acquisition cost of less than $500 and used four years or more. The grantee may use the property for its own official activities without reimbursement to the Federal Government or sell the property and retain the proceeds.

(2) All other nonexpendable property. The grantee may retain the property for its own use provided that a fair compensation is made to the original grantor agency for the latter's share of the property.

(c) If the grantee has no need for the property, disposition of the property shall be made as follows:

(1) Nonexpendable property with an acquisition cost of $1,000 or less. Except for that property which meets the criteria of (b)(1) above, the grantee shall sell the property and reimburse ERDA an amount which is computed in accordance with (iii) below.

(2) Nonexpendable property with an acquisition cost of over $1,000. The grantee shall request disposition instructions from the grantor agency. ERDA shall determine whether the property can be used to meet the agency's requirements. If no requirement exists within that agency, the availability of the property shall be reported to the General Services Administration (GSA) by the Federal agency to determine whether a requirement for the property exists in other Federal agencies. ERDA shall issue instructions to the grantee within 120 days and the following procedures shall govern:

(i) If the grantee is instructed to ship the property elsewhere, the grantee shall be reimbursed by the benefiting Federal agency for the grantee's share of the property plus any shipping or interim storage costs incurred.

(ii) If the grantee is instructed to otherwise dispose of the property, he shall be reimbursed by ERDA for such costs incurred in its disposition.

(iii) If disposition instructions are not issued within 120 days after reporting, the grantee shall sell the property and reimburse ERDA an amount which is computed by ap-

plying the percentage of Federal participation in the grant program to the sales proceeds. Further, the grantee shall be permitted to retain $100, or 10 percent of the proceeds, whichever is greater, for the grantee's selling and handling expenses.

(d) Where ERDA determines that property with an acquisition cost of $1,000 or more and financed solely with Federal funds is unique, difficult, or costly to replace, it may reserve title to such property, subject to the following provisions:

(1) The property shall be appropriately identified in the grant agreement or otherwise made known to the grantee.

(2) ERDA shall issue disposition instructions within 120 days after the completion of the need for the property under the Federal grant for which it was acquired. If ERDA fails to issue disposition instructions within 120 days, the grantee shall apply the standards of d.1.(a), d.1.(b)(2) and d.1.(c)(2).

2. *Federally-owned nonexpendable personal property.* Except as specifically authorized by statute, title to Federally-owned property (property to which the Federal Government retains title including excess property made available by the Federal grantor agencies to grantees) remains vested by law in the Federal Government. Upon termination of the grant or need for the property, such property shall be reported to ERDA for further agency utilization or, if appropriate, for reporting to the General Services Administration for other Federal agency utilization. Appropriate disposition instructions will be issued to the grantee after completion of ERDA review.

e. *Procedural requirements.* The grantees' property management standards for nonexpendable personal property shall also include the following procedural requirements:

1. Property records shall be maintained accurately and provide for: a description of the property; manufacturer's serial number or other identification number; acquisition date and cost; source of the property; location, use, and the condition of the property; and ultimate disposition data including sales price or the method used to determine current fair market value if the grantee reimburses the grantor agency for its share.

2. A physical inventory of property shall be taken and the results reconciled with the property records at least once every two years to verify the existence, current utilization, and continued need for the property.

3. A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft to the property. Any loss, damage, or theft of nonexpendable property shall be investigated and fully documented.

4. Adequate maintenance procedures shall be implemented to keep the property in good condition.

5. Proper sales procedures shall be established for unneeded property which would provide for competition to the extent practicable and result in the highest possible return.

f. *Disposition.* When the total inventory value of any unused expendable personal property exceeds $500 at the expiration of need for any Federal grant purposes, the grantee may retain the property or sell the property as long as he compensates the Federal Government for its share in the cost. The amount of compensation shall be computed in accordance with d.1.(b)(2).

g. *Intangible property.* Specific standards for control of intangible property are provided in Section 215 of this Manual for Patent Rights, Copyrights, and Rights in Technical Data.

814 Property management standards for other recipients than State and local governments.

a. *Purpose.* This section sets forth the uniform standards prescribed by OMB Circular No. A-110, Attachment N governing management of property furnished by the Federal Government or whose cost was charged to a project supported by a Federal grant or other agreement with institutions of higher education, hospitals, and other nonprofit organizations. The recipient may use its own property management standards and procedures provided it observes the provisions of this section. This section also applies to subrecipients (institutions of higher education, hospitals, and other nonprofit organizations). This section is not mandatory for grants or cooperative agreements to profit making organizations, individuals, or foreign organizations but should be applied when government property is furnished or acquired. Title to property shall not vest in a profit making organization, or an individual under a grant or cooperative agreement unless explicitly authorized in the award instrument.

b. *Definitions.* The following definitions apply for the purpose of this section:

1. *Real property.* Real property means land, land improvements, structures, and appurtenances thereto, but excluding movable machinery and equipment.

2. *Personal property.* Personal property of any kind except real property. It may be tangible—having physical existence, or intangible—having no physical existence, such as patents, inventions, and copy-rights.

3. *Nonexpendable personal property.* Nonexpendable personal property means tangible personal property having a useful life of more than one year and an acquisition cost of $300 or more per unit except that recipients subject to Cost Accounting Standards Board regulations may use the CASB standard of $500 per unit and useful life of two years. A recipient may use its own definition of nonexpendable personal property provided that the definition would at least include all tangible personal property as defined above.

4. *Expendable personal property.* Expendable personal property refers to all tangible personal property other than nonexpendable property.

5. *Excess property.* Excess property means property under the control of a Federal agency, as determined by the head thereof, is no longer required for its needs or the discharge of its responsibilities.

6. *Acquisition cost of purchased nonexpendable personal property.* Acquisition cost of an item of purchased nonexpendable personal property means the net invoice unit price of the property including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the property usable for the purpose for which it was acquired. Other charges such as the cost of installation, transportation, taxes, duty or protective in-transit insurance, shall be included or excluded from the unit acquisition cost in accordance with the recipient's regular accounting practices.

7. *Exempt property.* Exempt property means tangible personal property acquired in whole or in part with ERDA funds, and title to which is vested in the recipient pursuant to Pub. L. 85-934 without further obligation to ERDA except as provided in subparagraph f.1. below. Such unconditional vesting of title will be pursuant to any Federal legislation that provides ERDA with adequate authority.

c. *Real property.* The Award shall prescribe requirements for recipients concerning the use in disposition of real property.

The award may provide for an unqualified title in the recipient, unqualified title in ERDA, or a qualified title as appropriate to best achieve ERDA's statutory and program objectives.

d. *Federally-owned nonexpendable personal property.* The award shall prescribe requirements for recipients concerning the ownership, use, and disposition of nonexpendable personal property furnished or acquired with federal funds under the grant.

Upon completion of the agreement or when the property is no longer needed, the recipient shall report the Government property, it shall be declared excess and reported If ERDA has no further need for the property, it shall be declared excess and reported to the General Services Administration. Appropriate disposition instructions will be issued to the recipient after completion of review.

e. *Exempt property.* Based on the statutory authority in Pub. L. 85-934, (42 U.S.C. 1892) (for basic research with educational and nonprofit institutions), title to nonexpendable personal property acquired with project funds, shall be vested in the recipient upon acquisition unless it is determined prior to award that to do so is not in furtherance of the objectives of ERDA. When title is vested in the recipient, the recipient shall have no other obligation or accountability to the Federal Government for its use or disposition except as provided in f.1. below.

f. *Other nonexpendable property.* When other nonexpendable tangible personal property is acquired by a recipient with project funds, under Pub. L. 85-934, title shall not be taken by the Federal Government but shall vest irrevocably in the recipient unless otherwise provided in the award instrument, in which event the vesting in the recipient will be subject to the following conditions.

1. *Right to transfer title.* For items of nonexpendable personal property having a unit acquisition cost of $1,000 or more, the ERDA may reserve the right prior to award to transfer the title to the Federal Government or to a third party named by the Federal Government when such third party is otherwise eligible under existing statutes. Such reservation shall be subject to the following standards:

(a) The property shall be appropriately identified in the grant or other agreement or otherwise made known to the recipient in writing at the time of the award.

(b) ERDA shall issue disposition instructions within 120 calendar days after the end of the Federal support of the project for which it was acquired.

(c) When ERDA exercises its right to take title, the personal property shall be subject to the provisions for federally-owned nonexpendable property discussed in paragraph d. above.

2. [Reserved]

3. [Reserved]

4. *Property management standards for nonexpendable property.* The recipient's property management standards for nonexpendable management standards for nonexpendable personal property shall include the following procedural requirements:

(a) Property records shall be maintained accurately and shall include:

(1) A description of the property.

(2) Manufacturer's serial number, model number, Federal stock number, or other identification number.

(3) Source of the property, including grant or other agreement number.

(4) Whether title vests in the recipient or the Federal Government.

(5) Acquisition date (or date received, if the property was furnished by the Federal Government) and cost.

(6) Percentage (at the end of the budget year) of Federal participation in the cost

of the project or program for which the property was acquired. (Not applicable to property furnished by the Federal Government.)

(7) Location, use, and condition of the property and the date the information was reported.

(8) Unit acquisition cost.

(9) Ultimate disposition data, including date of disposal and sales price or the method used to determine current fair market value where a recipient compensates ERDA for its share.

(b) Property owned by the Federal Government must be marked to indicate Federal ownership.

(c) A physical inventory of property shall be taken and the results reconciled with the property records at least once every two years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the property.

(d) A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the property. Any loss, damage, or theft of nonexpendable property shall be investigated and fully documented; if the property was owned by the Federal Government, the recipient shall promptly notify ERDA.

(e) Adequate maintenance procedures shall be implemented to keep the property in good condition.

(f) Where the recipient is authorized or required to sell the property, proper sales procedures shall be established which would provide for competition to the extent practicable and result in the highest possible return.

g. *Expendable personal property.* Title to expendable personal property shall vest in the recipient upon acquisition. If there is a residual inventory of such property exceeding $1,000 in total aggregate fair market value, upon termination or completion of the grant or other agreement, and the property is not needed for any other federally sponsored project or program, the recipient shall retain the property for use on nonfederally sponsored activities, or sell it, but must in either case, compensate the Federal Government for its share. The amount of compensation shall be computed in the same manner as nonexpendable personal property.

h. *Intangible property.* Specific standards for control of intangible property are provided in Section 215 of this Manual for Patent Rights, Copyrights, and Rights in Technical Data.

815 Procurement standards.

a. *Purpose.* This section sets forth standards for use by institutions of higher education, hospitals, other nonprofit organizations, and State and local governments in establishing procedures prescribed by OMB Circular No. A-110, Attachment O and FMC 74-7, Attachment O, for the procurement of supplies, equipment, construction and other services with ERDA funds. These standards are furnished to ensure that such materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal law and executive orders. No additional procurement standards or requirements shall be imposed by ERDA upon recipients unless specifically required by Federal statute or executive order. This section is not mandatory for grants and cooperative agreement with profit making organizations and individuals but may be used for guidance where useful. This section is not applicable to foreign organizations. Notwithstanding the use of the term subgrants in this section, subgrants under ERDA grants or cooperative agreements shall not be made unless specifically authorized in the prime award instrument.

b. *Recipients are responsible.* The standards contained in this section do not relieve the recipient of the contractual responsibilities arising under its contracts. The recipient is the responsible authority, without recourse to ERDA regarding the settlement and satisfaction of all contractual and administrative issues arising out of procurements entered into, in support of a grant or other matters of a contractual nature. Matters concerning violation of law are to be referred to such local, State or Federal authority as may have proper jurisdiction.

c. *Procurement system standards.* Recipients may use their own procurement policies and procedures. However, all recipients shall adhere to the standards set forth in paragraphs c. and d.

1. The recipient shall maintain a code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the awarding and administration of contracts using ERDA funds. No employee, officer, or agent shall participate in the selection, award, or administration of a contract in which ERDA funds are used, where, to his knowledge, he or his immediate family, partners, or organization in which he or his immediate family or partner has a financial interest or with whom he is negotiating or has any arrangement concerning prospective employment. The recipients' officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or potential contractors. Such standards shall provide for disciplinary actions to be applied for violations of such standards by the recipients' officers, employees or agents.

2. All procurement transactions shall be conducted in a manner to provide, to the maximum extent practical, open and free competition. The recipient should be alert to organizational conflicts of interest or noncompetitive practices among contractors that may restrict or eliminate competition or otherwise restrain trade. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, invitations for bids, and/or requests for proposals should be excluded from competing for such procurements. Awards shall be made to the bidder/offeror whose bid/offer is responsive to the solicitation and is most advantageous to the recipient, price and other factors considered. Solicitations shall clearly set forth all requirements that the bidder/offeror must fulfill in order for his bid/offer to be evaluated by the recipient. Any and all bids/offers may be rejected when it is in the recipient's interest to do so.

3. All recipients shall establish procurement procedures that provide for, at a minimum, the following procedural requirements.

(a) Proposed procurement actions shall follow a procedure to assure the avoidance of purchasing unnecessary or duplicative items. Where appropriate, an analysis shall be made of lease and purchase, alternatives to determine which would be the most economical, practical procurement.

(b) Solicitations for goods and services shall be based upon a clear and accurate description of the technical requirements for the material, product or service to be procured. Such a description shall not, in competitive procurements, contain features which unduly restrict competition. "Brand name or equal" descriptions may be used as a means to define the performance or other a salient requirements of a procurement, and when so used the specific features of the named brand which must be met by bidders/offerors shall be clearly specified.

(c) Positive efforts shall be made by the recipients to utilize small business and minority-owned business sources of supplies and services. Such efforts should allow these sources the maximum feasible opportunity to compete for contracts utilizing ERDA funds.

(d) The type of procuring instruments used, e.g., fixed price contracts, cost reimbursable contracts, purchase orders, incentive contracts, shall be determined by the recipient but must be appropriate for the particular procurement and for promoting the best interest of the program involved. The "cost-plus-a-percentage-of-cost" method of contracting shall not be used.

(e) Contracts shall be made only with responsible contractors who possess the potential ability to perform successfully under the terms and conditions of a proposed procurement. Consideration shall be given to such matters as contractor integrity, record of past performance, financial and technical resources or accessibility to other necessary resources.

(f) All proposed sole source contracts or where only one bid or proposal is received in which the aggregate expenditure is expected to exceed $5,000 shall be subject to prior approval at the discretion of ERDA.

(g) Some form of price or cost analysis should be made in connection with every procurement action. Price analysis may be accomplished in various ways, including the comparison of price quotations submitted, market prices and similar indicia, together with discounts. Cost analysis is the review and evaluation of each element of cost to determine reasonableness, allocability and allowability.

(h) Procurement records and files for purchases in excess of $10,000 shall include the following:

(1) Basis for contractor selection;

(2) Justification for lack of competition when competitive bids or offers are not obtained;

(3) Basis for award cost or price.

(i) A system for contract administration shall be maintained to ensure contractor conformance with terms, conditions, and specifications of the contract, and to ensure adequate and timely followup of all purchases.

d. *Required contract provisions.* The recipient shall include, in addition to provisions to define a sound and complete agreement, the following provisions in all contracts. These provisions shall also be applied to subcontracts.

1. Contracts in excess of $10,000 shall contain contractual provisions or conditions that will allow for administrative, contractual, or legal remedies in instances in which contractors violate or breach contract terms, and provide for such remedial actions as may be appropriate.

2. All contracts in excess of $10,000 shall contain suitable provisions for termination by the recipient including the manner by which termination will be effected and the basis for settlement. In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

3. In all contracts for construction or facility improvement awarded for more than $100,000, recipients shall observe the bonding requirements provided in Section 209.

4. All contracts awarded by recipients and their contractors or subgrantees having a

value of more than $10,000, shall contain a provision requiring compliance with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60).

5. All contracts and subgrants in excess of $2,000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kick Back" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR, Part 3). This Act provides that each contractor or subgrantee shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to ERDA.

6. When required by the ERDA program legislation, all construction contracts awarded by the recipients and subrecipients of more than $2,000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a–7) and as supplemented by Department of Labor regulations (29 CFR, Part 5). Under this Act contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to ERDA.

7. Where applicable, all contracts awarded by recipients in excess of $2,000 for construction contracts and in excess of $2,500 for other contracts that involve the employment of mechanics or laborers, shall include a provision for compliance with sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327–330) as supplemented by Department of Labor regulations (29 CFR, Part 5). Under section 103 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard workday or workweek is permissible provided that the worker is compensated at a rate of not less than 1½ times the basic rate of pay for all hours worked in excess of 8 hours in any calendar day or 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

8. Provisions relating to Patents, Technical Data, and Copyrights shall be flowed down to contractors and subcontractors in accordance with 41 CFR 9–9.

9. All negotiated contracts (except those of $10,000 or less) awarded by recipients shall include a provision to the effect that the recipient, ERDA, the Comptroller General of the United States, or any duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts, and transcriptions.

10. Contracts and subagreements of amounts in excess of $100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970 (42 U.S.C. 1857 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) as amended. Violations shall be reported to ERDA agency and the Regional Office of the Environmental Protection Agency.

816 Suspension and termination procedures.

a. *Purpose.* This section sets forth the uniform suspension and termination procedures prescribed by OMB Circular No. A–110, Attachment L, for Federal grants and other agreements with institutions of higher education, hospitals, and nonprofit organizations. This section is not applicable to grants and cooperative agreements with State and local governments. This section is applicable to grants but not cooperative agreements with profit making organizations, individuals, and foreign organizations. See Section 621 for applicable provisions.

b. *Definitions.* The following definitions shall apply for the purpose of this section:

1. *Termination.* The termination of a grant or other agreement means the cancellation of ERDA sponsorship, in whole or in part, under an agreement at any time prior to the date of completion.

2. *Suspension.* The suspension of a grant or other agreement is an action by ERDA that temporarily suspends ERDA sponsorship under the grant or other agreement, pending corrective action by the recipient or pending a decision by ERDA to terminate the grant or other agreement.

c. *Procedure.* 1. *Notice.* Prior to issuing a termination or suspension notice, efforts should be made to informally resolve any discrepancies with the recipient. If informal efforts fail, ERDA may issue a notice of suspension or termination which notice will take effect 10 days after its issue date. Beginning on the effective date of the notice, ERDA may suspend the grant or other agreement, withhold further payments, prohibit the recipient from incurring additional obligations of funds pending corrective action by the recipient or a decision by ERDA to terminate. ERDA shall allow all necessary and proper costs that the recipient could not reasonably avoid during the period of suspension provided that they meet the provisions of the applicable Federal cost principles.

2. *Educational institutions.* Any proposed suspension or termination of a grant or other agreement with an institution of higher education must be coordinated with the Office of University Programs prior to final issuance.

3. *Authority to issue notice.* Awarding officers are the exclusive agents of ERDA authorized to issue notices and take final actions regarding suspension and termination actions. The awarding officer is available to take such action at the recommendation and request of the program officer. All notices to suspend or terminate cooperative agreements require the review of ERDA Office of Legal Counsel prior to issuance.

d. *Types of terminations.* ERDA shall systematically settle terminated grants or other agreements including the following:

1. *Termination for cause.* ERDA may reserve the right to terminate any grant or other agreement in whole or in part at any time before the date of completion, whenever it is determined that the recipient has failed to comply with the conditions of the agreement. ERDA shall promptly notify the recipient in writing of the determination and the reasons for the termination, together with the effective date. Payments made to recipients or recoveries by ERDA under grants or other agreements terminated for cause shall be in accordance with the legal rights and liabilities of the parties.

2. *Termination for convenience.* ERDA or recipient may terminate grants and other agreements in whole or in part when both parties agree that the continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. The recipient shall not incur new obligations for the terminated portion after the effective date, and shall cancel as many outstanding obligations as possible. ERDA shall allow full credit to the recipient for the ERDA share of the noncancellable obligations, properly in curred by the recipient prior to termination.

817 Collection of information—surveys and questionnaires.

Surveys, questionnaires, and other reports subject to the Federal Reports Act and OMB Circular A–40, revised are subject to the requirements of ERDA Manual Chapter 0210–055 through 057.

818 Foreign travel.

a. *Definition.* In grants to U.S. or Canadian institutions, foreign travel as defined by FMC 73–8 5.44e. is any travel outside of Canada and the United States and its territories and possessions.

b. *Prior ERDA approval.* Prior ERDA approval is required for each separate foreign trip before the grant may be charged directly for the cost of foreign travel. Foreign travel by grantee personnel may be charged to a grant only when explicitly approved in advance by the Grants Officer (regardless of its inclusion in the approved proposal budget). Approval of individual requests for foreign travel under grants are subject to such criteria, policies, and procedures as may be promulgated by the Office of University Programs, the Office of International Affairs, or other appropriate authority. More specifically, foreign travel requests should be processed and evaluated for approval in accordance with ERDA Manual Appendix 1501, Part VII and IAD 1501–1 dated April 28, 1975, and IAD 1501–4 dated February 27, 1976.

c. *Use of United States-flag carrier.* U.S.-flag air or surface carriers should be used for foreign travel supported by an ERDA award.

d. *Passports and visas.* ERDA assumes no responsibility for securing passports or visas required by any person because of their participation in an ERDA-supported project.

CHAPTER 9—ADDITIONAL FUNDING SUPPORT

Sec.
900 Purpose.
901 New grant.
902 Discrete grants.
903 Continuing grants.
904 Supplement request.
905 Renewal request.
906 Continuation request.

900 Purpose.

This chapter describes the kinds and methods of obtaining additional grant funding support. Since the kinds of additional funding are dependent upon the type of grant originally awarded, the chapter will begin with an explanation of types of grants. This Chapter is not applicable to cooperative agreements. Additional support for cooperative agreements is most appropriately negotiated on a case-by-case basis.

901 New Grant.

A new grant award is awarded where there is no current grant or has been no prior grant for a particular project with the recipient.

902 Discrete grant.

a. *Definition.* A discrete grant is awarded for a project, which is susceptible to definition and completion within a period of two years or less, within the funding provided during the period, and with no expectation or commitment of on-going or continuing ERDA suport beyond the two year period. The project is usually a one-time effort where subsequent support, if any, would be provided in the form of a renewal grant.

b. *Funding.* Discrete grants of one year or less should be fully funded where possible for the entire period upon award. However discrete grants with a period greater than one year should, at a minimum, be fully funded for the first year, or may be fully funded for the entire period or may be subsequently funded after award where project requirements dictate. If the grant is less than fully funded for the first or second years, then ERDA should initiate action to provide the remaining funding. A discrete grant may also provide full funding for the first year with funding for the second year contingent upon acceptable progress during the first year.

c. *Supplement request.* A supplement request may be submitted to ERDA to obtain the remaining funding of a partially funded grant, or when additional time and/or funds beyond the awarded amounts are needed to complete the project. In some cases, the expiration date may be extended, but no more than six months. Requests for supplemental funds may not exceed 50 percent of the funds for the time period currently awarded. Supplement awards of additional time and/or funds will be added to the current grant by modification. Supplement requests are not subject to the requirement for competition in Section 211 or justification for acceptance of unsolicited proposal in Section 302.

d. *Renewal request.* A renewal request, not a supplement request, may be submitted to ERDA for further support beyond the final increment of the discrete grant. A renewal request should be in the form of a new proposal. Renewal awards, if made, will be under a new grant instrument and number. To carry out the purpose of Section 211 regarding competition, renewal requests will be considered along with all other proposals competing for ERDA funds. Renewal requests are subject to the requirements regarding justification for acceptance of unsolicited proposal in Section 302.

903 Continuing grant.

a. *Definition.* Continuing grants are for those projects which, because of their long run, on-going nature, need on-going or continuing ERDA support for more than two years. Support beyond the amount initially awarded may be provided in accordance with b. Continuing grants shall not exceed a total of five years. Support beyond five years for the same project shall be made in response to a renewal request and awarded using a new grant instrument and number.

b. *Funding.* Continuing grants may be funded using the project period system as defined below:

1. *Project period.* A project period is the total time (not to exceed five years) for which the program office administratively approves the project and administratively commits itself to its financial support. Approval of continuation requests will be based on availability of funds, evidence of satisfactory progress, and continued relevance to ERDA's sponsoring program office. The project period is divided into several budget periods. The total project period includes the project period as initially awarded and any extension thereto. A continuing grant encompasses the total project period.

2. *Budget period.* Although the continuing grant may identify a several-year project period, the grant is funded in annual increments called budget periods. A budget period is an interval of time (usually 12 months) into which the project period is divided for budgetary and reporting purposes. The budget period provides funds in an amount estimated as being necessary to provide the Federal share of project costs in the approved budget for that year. Any funds in excess of the needs of the budget period for which they are awarded remain available for use in a succeeding budget period in accordance with the instructions of the grant officer. Any continuing grant award should be funded at a minimum of one 12 month budget period and may be funded by subsequent award of additional budget periods up to a total of five years.

c. *Continuation request.* A continuation request may be submitted to obtain additional financial support for a subsequent budget period within a previously approved project period. Continuation awards will be added to the current grant by modification. These requests are not subject to the requirements of Sections 211 or 302. Approval of continuation requests will be based on availability of funds, evidence of satisfactory progress, and continued relevance to ERDA's sponsoring program office.

d. *Supplement request.* A supplement request under a continuing grant should be submitted to ERDA only when funding within an approved budget period will not support performance until the funds are received from the subsequent budget period. Supplement awards will be added to the current grant by modification. These requests are not subject to the requirements of Sections 211 or 302.

e. *Renewal request.* A renewal request may be submitted to ERDA for additional support for one or more budget periods beyond an expiring project period. Renewal awards, if made, will be under a new grant instrument and number. These renewal requests are subject to Sections 211 and 302 and will be competing with other requests for ERDA funds.

904 Supplement request.

a. *When to submit.* Supplement requests as defined in Sections 902 and 903 should be as soon as the need for the supplement becomes known.

b. *What to submit.* The request should briefly summarize the status of the work, what additional funds and/or time is needed, the reasons why the supplement is needed and the consequences to the project if the supplement is not approved.

c. *Where to submit.* All supplement requests should be submitted to the ERDA grants officer who signed the grant award with one information copy submitted to the ERDA Program Officer.

905 Renewal request.

a. *When to submit.* If the grantee desires continuity of Federal funding for a particular project beyond the final increment, renewal proposals as defined in Sections 902 and 903 should be submitted at least three months prior to the expiration date of the current grant.

b. *What to submit.* Because a renewal request will result in award of a new grant instrument, a proposal for renewed support should be documented and endorsed as fully as though the proposer were applying for the first time, including a summary of progress made under the expiring grant, and all the information required in a proposal for a new project. See Chapters 3 and 4.

c. *Where to submit.* Renewal requests should be submitted to the offices designated in Section 402 with one information copy submitted to the ERDA program officer.

906 Continuation request.

a. *When to submit.* Continuation requests as defined in Section 903 should be submitted at least three months prior to the expiration of the current budget period.

b. *What to submit.* Because a continuation request, if approved, will result in adding an additional budget period to an existing grant which has initial project approval for several years, the progress made, findings and results obtained, project work or funding changes needed from the project as initially approved should be submitted. For the convenience of the recipient, the continuation request may be submitted with financial reports due at the end of the budget period third quarter. The continuation request progress report may be substituted for any other progress reports due at that time. The request must be signed by the principal investigator(s) and by the authorized organizational representative.

c. *Where to submit.* All continuation requests should be submitted to the ERDA grants officer who signed the grant with one information copy to the ERDA program officer.

Chapter 10—Closeout of ERDA Grants and Cooperative Agreements

Sec.

1000 Title.
1001 Closeout procedures.
1002 [Reserved]
1003 [Reserved]
1003 Retention custodial requirements for records.

1000 Closeout procedures.

a. *General.* This section sets forth uniform, closeout procedures prescribed by OMB Circular No. A–110, Attachment K, and FMC 74–7, Attachment L for grants and cooperative agreements with all recipients.

b. *Definitions.* The following definitions shall apply for the purpose of this Manual:

1. *Closeout.* The closeout of a grant or cooperative agreement is the process by which ERDA determines that all applicable administrative actions and all required work of the agreement have been completed by the recipient and ERDA.

2. *Date of completion.* The date of completion is the date on which all work under grants and cooperative agreements is completed, or the expiration date on the award document, or any supplement or amendment thereto, on which ERDA sponsorship ends.

3. *Disallowed costs.* Disallowed costs are those charges to a grant or cooperative or other agreement that ERDA or its representative determines to be unallowable, in accordance with the applicable Federal cost principles or other conditions contained in the agreements.

c. *Procedures for normal closeout.* ERDA's closeout procedures include the following requirements:

1. *Final payments.* Upon request ERDA shall make prompt payments to a recipient for allowable reimbursable costs under the grant or cooperative agreement being closed out consistent with Section 807 g.

2. *Refunds.* The recipient shall immediately refund any balance of unobligated (unencumbered) cash that ERDA has advanced or paid and that is not authorized to be retained by the recipient for use in other grants or cooperative agreements.

3. *Final reports.* In accordance with Sections 801 and 805 recipients shall submit, and ERDA shall obtain from the recipient within 90 calendar days after the date of completion of the agreement all financial, performance, and other reports required to be submitted to ERDA within such time as the condition of the agreement. The agency may grant extensions when requested by the recipient.

4. *Adjustment of Federal share.* When authorized by the grant or cooperative agreement, ERDA shall make a settlement for any

upward or downward adjustments to the Federal share of costs after these reports are received.

5. *Property accounting.* The recipient shall account for any property acquired with Federal funds, or received from the Government in accordance with the provisions of Section 814 and the terms in the award instrument.

6. *Right to recover.* If ERDA requires a final audit and it has not been performed prior to the closeout of the grant or cooperative agreement, ERDA shall retain the right to recover an appropriate amount after fully considering the recommendations on disallowed costs resulting from the final audit.

7. *Patent clearance.* If the grant or cooperative agreement has a patent rights clause, it is the renponsibility of ERDA Patent Counsel to certify that the recipient has complied with the provisions of the Patent Rights clause prior to closeout. Notwithstanding the reference to an ERDA approved form in the Patent Rights clause, recipients may furnish the required information without the use of an ERDA form.

d. *Closeout of suspended or terminated agreements.* Suspension and termination procedures are contained in Section 816.

1001 [Reserved]

1002 [Reserved]

1003 Retention and custodial requirements for records.

a. *Purpose.* This section sets forth record retention requirements prescribed by OMB Circular No. A-110, Attachment C, and FMC 74-7, Attachment C, for grantee and cooperative agreements with all recipients for grants and other agreements with recipients. This section is conceptually equivalent to FMC 74-7, Attachment C for State and local governments. ERDA shall notimpose any record retention requirements upon recipients other than those described below. This section applies only to those cooperative agreements which provide for payment of Federal funds to the recipient.

b. *Applicability to subrecipients.* Except for paragraph a., this section also applies to subrecipients which receive subagreements from a recipient.

c. *Retention period duration.* Financial records, supporting documents, statistical records, and all other records pertinent to an agreement shall be retained for a period of three years, with the following qualifications:

1. If any litigation, claim or audit is started before the expiration of the 3 year period, the records shall be retained until all litigations, claims, or audit findings involving the records have been resolved.

2. Records for nonexpendable property acquired with Federal funds shall be retained for 3 years after its final disposition.

3. When records are transferred to or maintained by ERDA, the 3-year retention requirement is not applicable to the recipient.

d. *Retention period starting point.* The retention period starts from the date of the submission of the final expenditure report or, for grants and other agreements that are renewed annually, from the date of the submission of the annual financial status report.

e. *Use of microfilm.* Recipients may substitute microfilm copies in lieu of original records.

f. *Transfer of records to ERDA.* ERDA shall request transfer of certain records to its custody from recipient organizations when it determined that the records possess long-term retention value. However, in order to avoid duplicate record-keeping, ERDA may make arrangements with recipient organizations to retain any records that are continuously needed for joint use.

g. *Examination of records.* The Administrator of ERDA, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any pertinent books, documents, papers, and records of the recipient organization and their subrecipients to make audits, examinations, excerpts, and transcripts.

h. *Public access to records for recipients other than State and local governments.* Unless otherwise required by law, ERDA will not place restrictions on recipient organizations that will limit public access to the records of recipient organizations that are pertinent to a grant or agreement except when ERDA can demonstrate that such records must be kept confidential and would have been excepted from disclosure pursuant to the Freedom of Information Act (5 U.S.C. 552) if the records had belonged to ERDA.

i. *Public access to records for State and local governments.* Unless otherwise required by law, no Federal grantor agency will place restrictions on State and local governments which will limit public access to the State and local governments' records except when records must remain confidential. Following are some of the reasons for withholding records: 1. Prevent a clearly unwarranted invasion of personal privacy. 2. Specifically required by statute or Executive order to be kept secret. 3. Commercial or financial information obtained from a person or a firm on a privileged or confidential basis.

APPENDIXES

Appendix and Title

A.—Process Flow Chart (Reserved).

B.—Grant Face Page (Form ERDA-337 Notice of Grant Award).

C.—ERDA Project Grant Provisions for Institutions of Higher Education, Hospitals, and other Nonprofit Organizations.

D.—Sample Grant Award File Check List.

E.—ERDA Project Grant Provisions for State and Local Governments.

F.—ERDA Project Grant Provisions for Profit Making Organizations and Individuals.

G.—Used Equipment Grant—Face Page and Provisions.

H.—ERDA Conference Grant Provisions.

I.—Reserved.

J.—Reserved.

K.—Reserved.

L.—Reserved.

M.—Cooperative Agreement—Face Page (Form ERDA 377-2).

N.—Cooperative Agreement—Sample Schedule Articles (Reserved).

O.—Cooperative Agreement—Sample Provisions.

APPENDIX B.—RESERVED

APPENDIX C.—ERDA PROJECT GRANT PROVISIONS FOR INSTITUTIONS OF HIGHER EDUCATION, HOSPITALS, AND OTHER NONPROFIT ORGANIZATIONS

This grant subject to the following provisions:

1. *General.* a. This grant award is composed of a grant face page which may incorporate the grantee's proposal by reference and the ERDA Project Grant Provisions for institutions of higher education, hospitals, and other nonprofit organizations.

b. This award constitutes acceptance by the U.S. Energy Research and Development Administration (ERDA) of the grantee's proposal and budget unless otherwise indicated on the face page.

c. The grantee is obligated to conduct such project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined herein. Within this framework, the Principal Investigator (PI) or Program Director (PD) named on the grant face page is responsible for the scientific or technical direction of the project and for preparation of the project performance reports.

d. This grant is funded on a cost reimbursement basis not to exceed the amount awarded as indicated on the face page and is subject to a refund of unexpended funds to ERDA.

e. This grant award is subject to the policies prescribed in OMB Circular A-110 dated July 30, 1976, and the ERDA Federal Assistance Manual (FAM).

2. *Reporting Program Technical Performance.*—a. *Frequency.* Performance reports will be submitted in the frequency indicated on the face page (quarterly and final, or final only). Final reports must be submitted no later than 90 days after the expiration date of the grant period indicated on the face page.

b. *Copies.* One copy of the reports shall be submitted to the Grants Officer and three copies to the ERDA Program Officer at the addresses indicated on the face page.

c. *Content.* The report content will be that prescribed in OMB Circular A-110, Attachment H.

d. *Publication of results.*—(1) *Acknowledgement statement.* Grantees may publish the results of their work. However, publications and reports prepared under this grant shall contain the following acknowledgement statement, "This (material) was prepared with the support of the U.S. Energy Research and Development Administration (ERDA) Grant No. _____. However, any opinions findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of ERDA."

3. *Additional funding support.* The requirements and procedures for requesting additional funding support are set forth in ERDA Federal Assistance Manual, Chapter 9.

4. *Suspension and termination.* This grant may be suspended or terminated in accordance with the policy prescribed by OMB Circular A-110, Attachment L and the procedures set forth in the FAM, Section 816.

5. *Travel.* Domestic travel is an appropriate charge to this grant, and prior authorization for specific trips is not required. Foreign travel must be clearly essential to the grant effort and must, to be charged against this grant, have prior explicit approval of the Grants Officer regardless of its inclusion in the approved grant budget. The grantee agrees to use U.S. Flag air carriers to the maximum extent practicable when international air transportation becomes necessary under this grant. Except as otherwise provided in the applicable cost principles referenced in Provision 6., the difference in cost between first-class air accommodations and economy class accommodations is unallowable.

6. *Allowable costs.* Allowability of costs shall be determined in accordance with Federal Management Circular 73-8 for Educational Institutions, or the Federal Procurement Regulations Subpart 1-15.2 as supplemented by ERDA Temporary Procurement Regulation No. 25 for nonprofit organizations. The extent of cost sharing, if any, is indicated on face page. The cost principles applicable to hospitals will be FMC 73-8, 41 CFR 1-15.2, or 41 CFR 1-15.7 depending on whether the hospital is classified as an educational institution, nonprofit or commercial organization, or an agency of a State or local government respectively.

7. *Retention and custodial requirements for records.* Grantees shall retain and permit examination of records as required by OMB Circular A-110, Attachment C.

8. *Payment and financial reporting requirements.* Payments by ERDA will be made by the method indicated on the face page. Grantee requests for payment, ERDA payments, and grantee financial reporting requirements shall be made in accordance with

OMB Circular A-110, Attachments I and G as implemented by the FAM, Sections 805 and 807.

9. *Property management standards.* Property shall be accounted for and managed in accordance with OMB Circular A-110, Attachment N as implemented in the FAM, Section 814.

10. *Patent rights (short form).* If the grant project involves research, development or demonstration, the patent provision in the FAM, Section 215 b. is applicable to this grant unless patent waiver is granted.

11. *Rights in data.* If the grant project involves research, development or demonstration, the rights in technical data clause (short form) is applicable to this grant and may be used in the FAM, Section 215 d.

12. *Authorization and consent.* Use the clause of 41 CFR 9-9.102-2 in accordance with Section 215 e. of the FAM.

13. *Notice and assistance.* Use the clause of 41 CFR 9-9104 in accordance with Section 215 f. of the FAM.

14. *Classified inventions.* Use the clause of 41 CFR 9-9.106 in accordance with Section 215 g. of the FAM.

15. *Reporting of royalties.* Use the clause of 41 CFR 9-9.110 in accordance with Section 215 h. of the FAM.

16. *Procurement standards.* Grantee procurements are subject to the requirements of OMB Circular, A-110, Attachment O.

17. *Revision of financial plans.* Grant activity under this grant is subject to the requirements of OMB Circular A-110, Attachment J.

18. *Program income.* Program income is subject to the policy prescribed by OMB Circular A-110, Attachment D.

19. *Statutory requirements.*—a. *Civil rights.* This grant is subject to the Civil Rights Act of 1964; Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974; and the implementing ERDA regulations in 10 CFR, Chapter III, Part 704.

The grantee agrees that no person in the United States shall, on the ground of race, sex, color or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the grantee receives financial support from ERDA.

b. *Nondiscrimination under federal grants.* This grant is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The grantee therefore agrees that "No otherwise qualified handicapped individual in the United States (as defined in section 7(6) of the Act), shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

c. *Clean air—clean water.* If this grant is over $100,000, it is subject to the provision of the Clean Air Act, as amended (42 USC 1857 et seq.,) the Federal Water Pollution Control Act, as amended (33 USC 1251 et seq.). Executive Order 11738, September 10, 1973, and the related regulations of the Environmental Protection Agency in 40 CFR Part 15, as implemented in the ERDA Federal Assistance Manual, Section 216.

20. *Liabilities and losses* ERDA assumes no liability with respect to any damages or loss arising out of any activities undertaken with the financial support of this grant.

APPENDIX D.—AWARD FILE CHECK LIST

—— 1. Solicited (see items 2-6). Unsolicited (skip to 7).
—— 2. Copy of the document which stimulated submission of the proposal, e.g., Program Opportunity Notice, Program R&D. Announcement, other solicitation.
—— 3. List of solicited proposers where a grantee was selected from several competing solicited proposals.
—— 4. Evaluation criteria and scoring system used to select awardees.
—— 5. Copies of the narrative technical and numerical evaluation of proposals, a list and rationale for those proposals selected for funding, proposals approved but not funded, and rejected proposals.
—— 6. List of evaluators—names of all individuals who formally reviewed and evaluated proposals, and also the names of those individuals who are responsible for making the selection, rejection decisions.
—— 7. Procurement request, contract authorization or functional equivalent which includes certification that funds be available for obligation by the Awarding Officer.
—— 8. Copy of the whole proposal including revisions.
—— 9. Assurances and Certifications: Civil Rights, Protection of Human Subjects, etc.
——10. Unsolicited proposal or Panel recommendation to Accept unsolicited Proposal, and project evaluation.
——11. All correspondence to or from Office of General Counsel.
——12. Any official and Congressional communications.
——13. Copies of any clearances, or other administrative approvals.
——14. Determination of grantee responsibility.
——15. Negotiation documentation. If any discussions are held with the prospective grantee to revise or clarify either the technical or cost proposal, the file must be documented to reflect the discussion, the agreements reached, and the changes incorporated as a result of the negotiation. Documentation should reflect business evaluation of the proposal.
——16. Copy of preaward approvals where required (locally determined).
——17. Copy of the award document and any attachments as awarded.
——18. Financial reports.
——19. Performance reports.
——20. Termination documentation, if any.
——21. Audit reports.
——22. Request for changes or approvals.
——23. Instrument closeout documents, e.g. certification of compliance with patent rights clause.

APPENDIX E.—ERDA PROJECT GRANT PROVISIONS FOR STATE AND LOCAL GOVERNMENTS

This grant subject to the following provisions:

1. *General.* a. This grant award is composed of a grant face page which may incorporate the grantee's proposal by reference and the ERDA Grant Provisions for State and local governments.

b. This award constitutes acceptance by the U.S. Energy Research and Development Administration (ERDA) of the grantee's proposal and budget unless otherwise indicated on the face page.

c. The grantee is obligated to conduct such project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined herein. Within this framework, the Principal Investigator (PI) or Program Director (PD) named on the grant face page is responsible for the scientific or technical direction of the project and for preparation of required reports.

d. This grant is funded on a cost reimbursement basis not to exceed the amount awarded as indicated on the face page and is subject to a refund of unexpended funds to ERDA.

e. This grant award is subject to the policies prescribed in FMC 74-7 as implemented in the ERDA Federal Assistance Manual (FAM).

2. *Reporting program technical performance.* a. *Frequency.* Performance reports will be submitted in the frequency indicated on the face page (quarterly and final, or final only). Final reports must be submitted no later than 90 days after the expiration date of the grant period indicated on the face page.

b. *Copies.* One copy of the reports shall be submitted to the Grants Officer and three copies to the ERDA Program Officer at the addresses indicated on the face page.

c. *Content.* The report content will be that prescribed in FMC 74-7, Attachment I.

d. *Publication of results.* (1) *Acknowledgement statement.* Grantees may publish the results of their work. However, publications and reports prepared under this grant shall contain the following acknowledgement statement; "This (material) was prepared with the support of the U.S. Energy Research and Development Administration (ERDA) Grant No. ------. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of ERDA."

3. *Additional funding support.* The requirements and procedures for requesting additional funding support are set forth in the FAM, Chapter 9.

4. *Travel.* Domestic travel is an appropriate charge to this grant, and prior authorization for specific trips is not required. Foreign travel is unallowable unless clearly essential to the grant effort and must have prior explicit written approval from the Grants Officer regardless of its inclusion in the approved grant budget. The grantee agrees to use U.S. Flag air carriers to the maximum extent practicable when international air transportation becomes necessary under the grant. The difference in cost between first-class air accommodations and economy class accommodations is unallowable.

5. *Allowable costs.* Allowability of costs shall be determined in accordance with Federal Management Circular 74-4.

6. *Retention and custodial requirements for records.* Grantees shall retain and permit examination of records as required by FMC 74-7, Attachment C.

7. *Payment and financial reporting requirements.* Payments by ERDA will be made by the method indicated on the face page. Grantee requests for payment, ERDA payments and grantee financial reporting requirements shall be made in accordance with FMC 74-7, Attachments H and J as implemented by the FAM, Sections 805 and 807.

8. *Property management standards.* Property shall be accounted for and managed in accordance with FMC 74-7, Attachment N as implemented in the FAM, Section 813.

9. *Patent rights (short form).* If the grant project involves research, development or demonstration, the patent provision in the FAM, Section 215b. is applicable to this grant unless patent waiver is granted.

10. *Rights in data.* If the grant project involves research, development or demonstration, the rights in technical data clause (short form) applies to this grant and may be used in accordance with Section 215d. of the FAM.

11. *Authorization and consent.* Use the clause of 41 CFR 9-9.102-2 in accordance with Section 215e. of the FAM.

12. *Notice and assistance.* Use the clause of 41 CFR 9-9.104 in accordance with Section 215f. of the FAM.

13. *Classified inventions.* Use the clause of 41 CFR 9-9.106 in accordance with Section 215g. of the FAM.

14. *Reporting of regulations.* Use the clause of 41 CFR 9-9.110 in accordance with Section 215h. of the FAM.

15. *Procurement standards.* Grantee procurements are subject to the requirements of FMC 74-7, Attachment O.

16. *Revision of financial plans.* Activity under this grant is subject to the requirements of FMC 74-7, Attachment K.

17. *Program income.* Program income is subject to the policy prescribed by FMC 74-7, Attachment E.

18. *Statutory requirements.* a. *Civil rights.* This grant is subject to the Civil Rights Act of 1964; Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974; and the implementing ERDA regulations in 10 CFR, Chapter III, Part 704.

The grantee agrees that no person in the United States shall, on the ground of race, sex, color, or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the grantee receives financial support from ERDA.

b. *Nondiscrimination under federal grants.* This grant is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The grantee therefore agrees that: "No otherwise qualified handicapped individual in the United States (as defined in section 7(6) of the Act), shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

c. *Clean air—clean water.* If this grant is over $100,000, it is subject to the provision of the Clean Air Act, as amended (42 U.S.C. 1857 et seq.), the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.).

d. Executive Order No. 11738, September 10, 1973, and the related regulations of the Environmental Protection Agency in 40 CFR Part 15, as implemented in the FAM, Section 216.

19. *Liabilities and losses.* ERDA assumes no liability with respect to any damages or loss arising out of any activities undertaken with the financial support of this grant.

APPENDIX F.—ERDA PROJECT GRANT PROVISIONS FOR PROFIT MAKING ORGANIZATIONS AND INDIVIDUALS

This grant subject to the following provisions:

1. *General.* a. This grant award is composed of a grant face page which may incorporate the grantee's proposal by reference and the ERDA Grant Provisions for profit making organizations and individuals.

b. This award constitutes acceptance by the U.S. Energy Research and Development Administration (ERDA) of the grantee's proposal and budget unless otherwise indicated on the face page.

c. The grantee is obligated to conduct such project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined herein. Within this framework, the Principal Investigator (PI) or Program Director (PD) named on the grant face page is responsible for the management and technical direction of the project and for preparation of required reports.

d. This grant is funded on a cost reimbursement without fee or profit not to exceed the amount awarded as indicated on the face page and is subject to a refund of unexpended funds to ERDA. There is no commitment for further additional ERDA funding beyond the amount awarded in this grant. Grantees are expected to bring their project to a conclusion within the funds provided. It is stressed that ERDA is under no obligation to provide additional funding if the project cannot be completed within the awarded grant funds.

e. This grant award is subject to the policies prescribed in the ERDA Federal Assistance Manual (FAM).

2. *Reporting program technical performance.* a. *Frequency.* Performance reports will be submitted in the frequency indicated on the face page (quarterly and final, or final only). Final reports must be submitted no later than 90 days after the expiration date of the grant period indicated on the face page.

b. *Copies.* One copy of the reports shall be submitted to the Grants Officer and three copies to the ERDA Program Officer at the addresses indicated on the face page.

c. *Content.* The report content will be that prescribed in the FAM, Section 801 unless otherwise specified on the face page.

d. *Publication of results.* (1) *Acknowledgment statement.* Grantees may publish the results of their work. However, publications and reports prepared under this grant shall contain the following acknowledgment statement: "This (material) was prepared with the support of the U.S. Energy Research and Development Administration Grant No. ------. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of ERDA."

3. *Additional funding support.* The requirements and procedures for requesting additional funding support are set forth in the FAM, Chapter 9.

4. *Suspension and termination.* This grant may be suspended or terminated in accordance with the policy and procedures set forth in the FAM, Section 816.

5. *Travel.* Domestic travel is an appropriate charge to this grant, and prior authorization for specific trips is not required. Foreign travel must be clearly essential to the grant effort and must, to be charged against this grant, have prior explicit approval of the Grants Officer regardless of its inclusion in the approved grant budget. The grantee agrees to use U.S. Flag air carriers to the maximum extent practicable when international air transportation becomes necessary under this grant. The difference in cost between first-class air accommodations and economy class accommodations is unallowable.

6. *Allowable costs.* Allowability of costs shall be determined in accordance with the Federal Procurement Regulations Subpart 1-15.2 cost principles for commercial organizations as amended by ERDA Procurement Regulation 9-15.205-3, Bidding Costs, and 9-15.205-35, Research and Development Costs. The extent of cost sharing, if any, is indicated on face page.

7. *Retention and custodial requirements for records.* Grantees shall retain and permit examination of records as required by the FAM, Section 1003.

8. *Payment and financial reporting requirements.* Payments by ERDA will be made by the method indicated on the face page. Grantee requests for payment, ERDA payments, and grantee financial reporting requirements shall be made in accordance with the FAM, Sections 805 and 807.

9. *Property management standards.* If government property is either furnished by ERDA or acquired by the grantee, it will be accounted for and managed in accordance with the FAM, Section 814. Title to grantee acquired property shall remain in ERDA unless otherwise provided in this award.

10. *Patent rights.* If the grant project involves research, development, or demonstration, the patent provision reference in the ERDA Federal Assistance Manual, Section 215c. is applicable to this grant.

11. *Rights in data.* The rights in technical data (long form) clause of 41 CFR 9-9.202-3(e) and the additional technical data requirements clause of 41 CFR 9-9.202-3(c) are to be used in accordance with Section 215D. of the FAM.

12. *Authorization and consent.* Use the clause of 41 CFR 9-9.102-2 in accordance with Section 215e. of the FAM.

13. *Notice and assistance.* Use the clause of 41 CFR 9-9.104 in accordance with Section 215f. of the FAM.

14. *Classified inventions.* Use the clause of 41 CFR 9-9.103 in accordance with Section 215g. of the FAM.

15. *Reporting of royalties.* Use the clause of 41 CFR 9-9.110 in accordance with Section 215h. of the FAM.

16. *Procurement standards.* Grantee procurements are subject to the requirements of the FAM, Section 815 unless otherwise provided in this award.

17. *Revision of financial plans.* Activity under this grant is subject to the requirements of the FAM, Section 806 unless otherwise provided herein.

18. *Program income.* Program income is subject to the policy prescribed by OMB Circular A-110, Attachment D, as implemented in the FAM, Section 809 unless otherwise provided in this award.

19. *Statutory requirements.* a. *Civil rights.* This grant is subject to the Civil Rights Act of 1964; Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974; and the implementing ERDA regulations in 10 CFR, Chapter III, Part 704.

The grantee agrees that no person in the United States shall, on the ground of race, sex, color, or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the grantee receives financial support from ERDA.

b. *Nondiscrimination under federal grants.* This grant is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The grantee therefore agrees that: "No otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

c. *Clean air—clean water.* If this grant is over $100,000, it is subject to the provisions of the Clean Air Act, as amended (42 USC 1857 et seq.), the Federal Executive Order 11738, September 10, 1973, and the related regulations of the Environmental Protection Agency in 40 CFR Part 15, as implemented in the FAM, Section 216.

20. *Liabilities and losses.* ERDA assumes no liability with respect to any damages or loss arising out of any activities undertaken with the financial support of this grant.

APPENDIX G.—USED EQUIPMENT GRANT PROVISIONS

The grant on the face hereof is placed in accordance with and subject to the following terms and conditions:

1. The term "grantee" as used herein means the educational institution receiving this grant. The term "ERDA" means the U.S. Energy Research and Development Administration and its duly authorized representatives. The phrase "persons acting on behalf of the ERDA" includes authorized contractors of the ERDA and their duly authorized representatives. The term "equipment" as used herein means the used items described on the face hereof as the item(s) being

granted. The term "ERDA Facility" means the laboratory, plant, or office, operated by or on behalf of the ERDA, in possession and/or responsible for each equipment item shown on the face hereof.

2. The grantee understands that the ERDA may fulfill its obligations under this grant through any ERDA Facility(s).

3. The grantee agrees to pay for all costs of packing, normal and special handling, crating and shipping, and agrees to coordinate the costs and any payments with the ERDA Facility.

4. The grantee will be responsible for any repair and modification costs to any equipment received under this grant.

5. The grantee agrees to arrange shipping instructions and costs with the cognizant ERDA Facility(s) within two weeks from acceptance of this grant.

6. Neither the Government, the ERDA, nor persons acting on behalf of the ERDA make any warranty or other representation, express or implied, that the equipment granted under this program will accomplish the results for which it is requested or intended.

7. The grantee hereby releases and agrees to hold the Government, the ERDA, or persons acting on behalf of the ERDA harmless for any and all liability of every kind and nature whatsoever resulting from the receipt, shipping, installation, operation, handling, use, and maintenance of the equipment after said equipment is physically removed from the ERDA Facility(c).

8. The grantee will utilize the granted equipment primarily for nuclear instructional purposes in regularly scheduled laboratory and instructional courses.

9. The grant of this equipment does not relieve the grantee from complying with the Atomic Energy Act of 1954, as amended, and the regulations issued pursuant thereto, including all requirements for permits and licenses, with respect to such equipment.

10. The grantee agrees to grant to the Government an irrevocable, non-exclusive, royalty-free license in any invention covering a modification or improvement of the granted equipment made in the course of or under this grant.

11. *Statutory requirements.* a. *Civil rights.* This grant is subject to the Civil Rights Act of 1964; Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974; and the implementing ERDA regulations in 10 CFR Chapter III, Part 704.

The grantee agrees that no person in the United States shall, on the ground of race, sex, color or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the grantee receives financial support from ERDA.

b. *Nondiscrimination under federal grants.* This grant is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The grantee therefore agrees that "No otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

12. The grantee agrees to deliver a report in such form and content as may be requested by the ERDA grants officer, one year from date of delivery of the equipment granted hereunder.

13. The grantee in signing on the face hereof accepts the grant and its terms and conditions and acknowledges that this agreement and the proposal referenced herein comprise the total agreement between the grantee and the ERDA.

APPENDIX H.—ERDA CONFERENCE GRANT PROVISIONS

1. *General.* a. This award is composed of a grant face page which may incorporate the grantee's proposal by reference, an award budget, and these Conference Grant Provisions.

b. This grant award constitutes acceptance by the U.S. Energy Research and Development Administration (ERDA) of the grantee's proposal and budget unless otherwise indicated on the face page.

c. The grantee is responsible for mangaging the project as required in conformance with the provisions and award budget of this grant. The program director (PD) named on the grant face page is responsible for the direction of the project and for preparation of required reports.

2. *Expenditures.* a. *Limitation of support.* This grant gives the authority to the grantee to commit and expend funds for allowable costs in support of the project up to the award amount specified on the face page at any time during the grant period. ERDA is neither obligated nor committed to provide any additional funds beyond the amount awarded in the grant. Expenditures by the grantee beyond the funds provided in the grant will be considered a contribution by the grantee toward furtherance of the project.

b. *Allowable costs.* The award budget lists the approved categories of cost, as itemized in the final proposed budget, for which ERDA support is being provided. Unless otherwise stated in the award budget, the grant may be charged for the approved categories of expenses listed therein. Expenses for categories other than those approved by ERDA in the award budget may be charged to the grant provided such expenses are allowable in accordance with applicable Federal cost principles. FMC 73-8, Educational institutions; FMC 74-4, State and local governments; 41 CFR 1-15.2, Profit making organizations, nonprofits, and individuals as supplemented by ERDA Temporary Procurement Regulation No. 25. ERDA's objective in providing grant support is to make possible the communication and exchange of scientific, technical, and other information in areas relevant to ERDA's mission. Therefore, ERDA funds shall only be used for costs which are directly related to this objective. ERDA funds shall not be used to pay for purchase of equipment, any kind of social activities, food, beverages, entertainment, or the like without specific prior approval from the grants officer. No ERDA funds may be used to conduct research, development, or demonstration work under this grant.

c. *Conference income.* This paragraph applies where there is income from any source other than ERDA to offset conference costs from other than ERDA. The amount of conference cost, if any, for which the grantee is at risk or otherwise contributes which is not funded by ERDA, other Federal government agencies, or other contributions or conference fees, is hereby defined as the grantee's cost share. If the total income, including the grantee cost share, exceeds the total conference cost, then the surplus income in excess of the cost from the conference shall first be retained by the grantee to offset its cost share. Any remaining surplus income in excess of the grantees cost share shall be allocated to Federal government sponsors up to the amount of their support either as a refund or a reduction in the amount the grantee requests for reimbursement from these agencies. Any income remaining after the foregoing allocations shall vest in the grantee and shall be dedicated by the grantee to support similar conference activities in the future.

d. *Final expenditure report.* The grantee shall, by the end of the grant period, submit to the ERDA grants officer a final expenditure report which identifies all sources and amounts of conference income, details the amounts actually expended, indicates whether there is an income surplus, how the costs were allocated to all Federal project sponsors, and how income surplus, if any, will be allocated in accordance with paragraph c. above. Where particular expenditures charged to the grant are believed to be inconsistent with the purpose of the grant as expressed in the approved budget or applicable cost principles, the grants officer may require the grantee to submit additional information or require an audit. Final payment may be withheld or suspended pending clarification of the matter. Expenses charged to the grant which are clearly inconsistent with the purpose of the grant are subject to being refunded to ERDA.

3. *Payment.* The method of payment (advance payment by Treasury check(s), or reimbursement by Treasury check(s)) is indicated on the grant face page. If the grantee is an institution of higher education, payment may be made by letter of credit. Payments of up to 60 percent of the grant award may be made following execution of the grant and submission of a voucher for payment. An additional 20 percent may be paid upon request by the grantee at the time additional funds are needed. The remaining 20 percent will be withheld by ERDA until receipt of all required reports except that only 5 percent will be withheld if all reports other than those delayed by provision 6.b. have been delivered. The documents to be submitted for payment will be specified by the grants officer and submitted to the address given on the face page.

4. *Project Activity Report and Proceedings.* The Project Director, by the end of the grant period, shall describe the project results in a brief, informal letter type summary activity report to the ERDA program officer. More specific activity reporting requirements may be identified on the face page.

Any conference proceedings published by the Grantee must acknowledge support by this ERDA grant with a statement to the effect that: "This material was prepared with the support of Energy Research and Development Administration Grant No. . Any opinions, findings, conclusions, or recommendations are those of the author(s) and do not necessarily reflect the views of ERDA."

5. *Travel.* Funds from this grant may not be used to provide travel, per diem, or related expenses to third parties unless specifically approved by ERDA in the award budget. Such approved funds for travel expenses by third parties shall be expended in accordance with Federal Travel Regulations. Travel costs for grantee employees will be allowed in accordance with applicable Federal cost principles referenced in provision 2.

6. *Rights in Technical Data and Copyrights.* This provision is applicable only where the principal purpose of this grant is to present technical data (i.e., recorded information, regardless of form or characteristic, of a scientific or technical nature) relating to the energy field.

a. The Grantee grants to the Government a world-wide, royalty-free, nonexclusive, irrevocable license to publish, duplicate, translate, perform, exhibit and dispose of, and to have others do so, technical information or data including copyrightable material first produced by the Grantee under this grant.

b. ERDA has the right to require delivery of all technical information or data first produced by the grantee under this grant and

all conference papers of a scientific or technical nature. The Grantee agrees not to include in the technical information, or data, or scientific or technical conference papers delivered under this grant, any material copyrighted by the Grantee or any material including scientific or technical conference papers copyrighted by others without first obtaining without cost a license therein for the benefit of the government of the same scope as set forth in paragraph a. above. If, nevertheless, there must be included in the technical information, or data, or scientific or technical conference papers to be delivered copyrighted material for which a license of the above scope cannot be obtained, the Grantee shall obtain the written authorization of ERDA to include such material prior to its physical delivery to ERDA.

7. *Revocation.* This grant may be revoked in whole or in part by ERDA. In the event of revocation, the grantee shall refund to ERDA any unexpended funds that it has received under the grant, except such portion thereof as may be required by the grantee to meet noncancellable obligations properly incurred, become firm prior to the effective date of revocation and are otherwise appropriate. The Grantee should notify the grants officer whenever the Grantee believes circumstances may impair the successful continuation of the grant or may require that the grant be modified or revoked.

8. *Statutory Requirements.* a. *Civil rights.* This grant is subject to the Civil Rights Act of 1964; Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974; and the implementing ERDA regulations in 10 CFR Chapter III, Part 704. The grantee agrees that no person in the United States shall, on the ground of race, sex, color or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the grantee receives financial support from ERDA.

b. *Nondiscrimination under federal grants.* This grant is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The grantee therefore agrees that "No otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

APPENDIX M.—RESERVED

APPENDIX N.—COOPERATIVE AGREEMENT—SAMPLE SCHEDULE ARTICLES (RESERVED)

APPENDIX O

This Appendix provides sample provisions which should be used as prescribed in Section 621 c.4. and 5. The provisions have been written to reflect use in cooperative agreements and should be used as provided. This Appendix is divided into three subparts: 1. Required provisions in all cooperative agreements; 2. Additional required provisions in cooperative agreements which provide for payment of funds to the Participant; 3. When applicable provisions.

1. *Required provisions in all cooperative agreements*—a. *Officials not to benefit.* No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

b. *Covenant against contingent fees.* The Participant warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Participant for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

c. *Sex discrimination prohibited.* No person shall on the ground of sex be excluded from participation in, be denied a license under, be denied the benefits of, or be subjected under any program or activity carried on or receiving Federal assistance under any title of this Act (P.L. 93-438).

d. *Small and minority business participation.* It is the policy of ERDA to ensure that small and minority businesses have a reasonable opportunity to participate in the projects which it supports. In accordance with this policy, the participant will make a reasonable effort to ensure fair consideration and utilization of small and minority businesses in purchases and subcontracts awarded by the participant under this Agreement.

e. *Preference for U.S. flag air carriers.* 1. It is the policy of the United States that all Federal agencies and Government contractors and subcontractors utilize U.S. flag air carriers for international air transportation of personnel and cargo.

2. The Participant agrees to utilize U.S. flag air carriers to the maximum extent practicable in connection with the performance of this agreement in the transportation by air of any personnel and cargo between the United States and a foreign country, or between foreign countries.

3. The terms used in this clause have the follow meanings:

a. "International air transportation" means transportation by air of personnel and cargo from the United States to a foreign country, between two or more foreign countries, and between a foreign country and the United States.

b. "U.S. flag air carrier" means one of a class of air carriers holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board, approved by the President, authorizing operations between the United States and/or its territories and one or more foreign countries.

c. The term "United States" includes the fifty States, Commonwealth of Puerto Rico, possessions of the United States and the District of Columbia.

d. "Practicable" includes (i) satisfactory servicing of agency programs, and (ii) timely deliveries at fair and reasonable prices.

4. The Participant shall include the substance of this clause, including this paragraph (d) in each subcontract or purchase order hereunder which may involve air transportation between the United States and a foreign country or between foreign countries.

f. Disputes [Reserved]

2. Additional provisions required in cooperative agreements which provide for payment of ERDA funds to the Participant.

a. *Clear Air and Water.* (a) The Participant agrees as follows:

(1) To comply with all the requirements of section 114 of the Clean Air Act, as amended (42 USC 1857, et seq., as amended by P.L. 91-604) and section 308 of the Federal Water Pollution Control Act (33 USC 1251 et seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this agreement.

(2) That no portion of the work required by this agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(3) To use his best efforts to comply with clean air standards and clean water standards at the facility in which the agreement is being performed.

(4) To insert the substance of this clause into any nonexempt subcontract, including this paragraph (a)(4).

(b) The terms used in this provision have the following meanings:

(1) The term "Air Act" means the Clean Air Act, as amended (42 USC 1857 et. seq., as amended by P.L. 91-604).

(2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 USC 1251 et. seq., as amended by P.L. 92-500).

(3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act (42 USC 1857c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act (42 USC 1857(c)-6 (c) and (d), or an approved implementation procedure under section 112(d) of the Air Act (42 USC 1857c-7(d)).

(4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act 33 (U.S.C. 1317).

(5) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water Act and regulations issued pursuant thereto.

(6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

b. *Civil rights.* The Participant agrees that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity for which the Participant receives Federal financial assistance from ERDA.

c. *Discrimination against handicapped prohibited.* The Participant agrees that no otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

d. *Examination of records by Comptroller General.* 1. The Participant agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under this agreement, unless ERDA authorizes their prior disposition, have access to and the right to examine any directly pertinent books, document, papers, and records of the participant involving transactions related to this agreement.

2. The Participant further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under the subcontract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding $10,000 and (2) subcontracts or purchase orders for public utility services at rates established or uniform applicability to the general public.

3. The periods of access and examination described in (a) and (b), above, for records which relate to (1) appeals under the "Disputes" clause of this agreement, (2)" litigation or the settlement of claims arising out of the performance of this agreement, or (3) costs and expenses of this agreement as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, or ERDA shall continue until such appeals, litigation, claims or exceptions have been disposed of.

e. *Assignment of Claims.* Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), claims for moneys due or to become due the participant from the Government under this agreement may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts payable under this agreement and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. Unless otherwise provided in this agreement, payments to assignee of any moneys due or to become due under this agreement shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff.

f. *Audit.* The Participant shall maintain, and the Awarding Officer or his representative shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this agreement. Such right of examination shall include inspection at all reasonable times of the Participant's plants, or such parts thereof, as may be engaged in the performance of this agreement.

The materials described above, shall be made available at the office of the Participant, at all reasonable times, for inspection, audit or reproduction, until the expiration of 3 years from the date of final payment under this agreement or such lesser time specified in Part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such lesser period, if any, as is required by applicable statute, or by other clauses of this agreement by (1) and (2) below:

(1) If this agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of 3 years from the date of any resulting final settlement.

(2) Records which relate to appeals under the "Disputes" clause of this agreement, or litigation or the settlement of claims arising out of the performance of this agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

3. When applicable provisions. a. *Equal employment opportunity.* During the performance of this agreement, the Participant agrees as follows: (1) The Participant will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Participant will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; and selection for training, including apprenticeship. The Participant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(2) The Participant will, in all solicitations or advertisements for employees placed by or on behalf of the Participant, state that all qualified applicants will receive consideration for employment without regard to race, creed, color or national origin.

(3) The Participant will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency Contracting Officer, advising the labor union or workers representative of the Participant's commitments under the Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Participant will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The Participant will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the Participant's noncompliance with the Equal Opportunity clause of this agreement or with any of the said rules, regulations, or orders, this agreement may be canceled, terminated, or suspended in whole or in part, and the Participant may be declared ineligible for further Government contracts or agreements in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed, and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Participant will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 1246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* That in the event the Participant becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by ERDA, the Participant may request the United States to enter into such litigation to protect the interests of the United States.

b. *Buy American Act.* (1) In acquiring end products, the Buy American Act (41 U.S.C. Code 10a-d) provides that the Government give preference to domestic source end products. For the purpose of this clause:

(i) "Components" means those articles, materials and supplies which are directly incorporated in the end products;

(ii) "End products" means those articles, materials, and supplies which are to be acquired under this agreement for public use; and

(iii) A "domestic source end product" means (A) an unmanufactured end product which has been mined or produced in the United States and (B) an end product manufacturd in the United States if the cost of the components thereof which are mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. For the purposes of this (1) (iii) (B), components of foreign origin of the same type or kind as the products referred to in (2) (ii) and (iii) of this clause shall be treated as components mined, produced, or manufactured in the United States.

(2) The Participant agrees that there will be delivered under this agreement only domestic source end products, except end products;

(i) Which are for use outside the United States;

(ii) Which the Government determines are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality;

(iii) As to which the Administrator or his designee determines the domestic preference to be inconsistent with the public interest; or cost to the Government to be unreasonable.

c. *Mandatory purchase of Flood Insurance.* If funds under this agreement are used for acquisition or construction purposes in an identified flood plain area in the United States having special flood hazards, the Participant agrees to purchase flood insurance and comply with the provisions prescribed by the Federal Insurance Administration in 24 CFR Chapter X, Subchapter B.

d. *Authorization and consent,* 41 CFR 9-9.102-2.

e. *Notice and assistance,* 41 CFR 9-9.104.

f. *Classified inventions,* 41 CFR 9-9.110.

g. *Reporting of Royalties,* 41 CFR 9-9.110.

h. *Patent rights (long form),* 41 CFR 9-9.107-6.

i. *Patent rights (short form),* 41 CFR 9-9.107-6.

j. *Rights in technical data (long form)*, 41 CFR 9-9.202-3(e).

k. *Additional technical data requirements* (normally used when the rights in technical data (long form) is used), 41 CFR 9-9.202-3 (c).

l. *Rights in technical data (short form)*, 41 CFR 9-9.202.

[FR Doc.77-14960 Filed 5-27-77;8:45 am]

ADMINISTRATOR, EMERGENCY NATURAL GAS ACT OF 1977

[Docket No. E77-107]

EL PASO NATURAL GAS CO.

Emergency Order

On May 13, 1977, El Paso Natural Gas Company (El Paso) filed, pursuant to Section 6 of the Emergency Natural Gas Act of 1977 (Act), Pub. L. 95-2 (91 Stat. 4 (1977)) an application for authorization to make certain emergency purchases of natural gas from Diamond Shamrock Corporation (Diamond). For the reasons set forth below, I authorize these emergency purchases.

By agreement dated May 12, 1977, El Paso agreed to purchase natural gas from Diamond's Fillingim No. 1 Gas Well, Hemphill County, Texas. Said agreement will begin as soon as practicable as an emergency purchase and will terminate on July 31, 1977.

El Paso will purchase these supplies at a fair and equitable rate, not to exceed $2.25 per MMBtu, inclusive of all state and local taxes and other adjustments. I find the price to be fair and equitable in accordance with Order No. 2.

El Paso shall submit weekly reports as required by Order No. 4.

Pursuant to Section 6(a) of the Act, I hereby authorize Diamond to sell El Paso natural gas from the Fillingim No. 1 Gas Well, Hemphill County, Texas, on the terms and conditions set forth in El Paso's filing in this proceeding.

This order is issued pursuant to the authority delegated to me by the President in Executive Order No. 11969 (February 2, 1977), and shall be served upon El Paso and Diamond. This order shall also be published in the FEDERAL REGISTER.

This order and authorization granted herein are subject to the continuing authority of the Administrator under Pub. L. 95-2 and the rules and regulations which may be issued thereunder.

MAY 24, 1977.

RICHARD L. DUNHAM,
Administrator.

[FR Doc.77-15434 Filed 5-27-77;8:45 am]

DEPARTMENT OF AGRICULTURE

Agriculture Marketing Service

FLUE-CURED TOBACCO ADVISORY COMMITTEE

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: Flue-Cured Tobacco Advisory Committee

DATE: June 23, 1977

PLACE: Tobacco Division, Agricultural Marketing Service, U.S. Department of Agriculture, laboratory, Room 223 Flue-Cured Tobacco Cooperative Stabilization Corporation, 1306 Annapolis Drive, Raleigh, North, Carolina 27505

TIME: 1:00 p.m.

PURPOSE: To discuss marketing area opening dates and selling schedules for flue-cured tobacco to be sold in each marketing area for the 1977 season. Also, other matters as specified in 7 CFR, Part 29, Subpart G, 9404.

The meeting is open to the public but space and facilities are limited. Public participation will be limited to written statements submitted before or at the meeting unless their participation is otherwise requested by the Committee Chairman. Persons, other than members, who wish to address the Committee at the meeting should contact Mr. J. W. York, Director, Tobacco Division, Agricultural Marketing Service, 300 12th Street, SW., United States Department of Agriculture, Washington, D.C. 20250, (202) 447-2567.

Dated: May 25, 1977.

WILLIAM T. MANLEY,
Acting Administrator.

[FR Doc.77-15368 Filed 5-27-77;8:45 am]

Soil Conservation Service

CENTRAL COAST RESOURCE CONSERVATION AND DEVELOPMENT AREA; PINTO LAKE PUBLIC WATER-BASED RECREATION MEASURE, CALIFORNIA IDENTIFICATION NUMBER 06-6002-087-001

Availability of Negative Declaration

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969; part 1500.6(e) of the Council on Environmental Quality Guidelines (38 FR 20550) August 1, 1973; and part 650.8(b)(3) of the Soil Conservation Service Guidelines (39 FR 19651) June 3, 1974, the Soil Conservation Service, U.S. Department of Agriculture, gives notice that an environmental impact statement is not being prepared for the Pinto Lake Public Water-Based Recreation Measure, Santa Cruz County, California.

The environmental assessment of this Federal action indicates that the measure will not create significant adverse local, regional, or national impacts on the environment and that no significant controversy is associated with the measure. As a result of these findings, Mr. Francis C. H. Lum, State Conservationist, Soil Conservation Service, USDA, 2828 Chiles Road, Davis, California 95616, has determined that the preparation and review of an environmental impact statement is not needed for this measure.

The measure concerns a plan for the installation of basic recreation facilities and the preservation and enhancement of wildlife resources around Pinto Lake.

The negative declaration is being filed with the Council on Environmental Quality, and copies are being sent to various Federal, State, and local agencies. The basic data developed during the environmental assessment are on file and may be reviewed by interested parties at the Soil Conservation Service, 100 West Alisal, Salinas, California 93901, or at the Soil Conservation Service, 2828 Chiles Road, Davis, California 95616. A limited number of copies of the negative declaration is available from the same addresses to fill single copy requests.

No administrative action on implementation on the proposal will be taken until June 15, 1977.

(Catalog of Federal Domestic Assistance Program No. 10.901, National Archives Reference Services)

Dated: May 19, 1977.

M. D. BURDICK,
Director, Resource Development Division.

[FR Doc.77-15342 Filed 5-27-77;8:45 am]

CIVIL AERONAUTICS BOARD

[Docket Nos. 15529; 27589; Order 77-5-132]

BAGGAGE LIABILITY RULES CASE AND DOMESTIC BAGGAGE LIABILITY RULES INVESTIGATION

Order to Show Cause

Adopted by the Civil Aeronautics Board at its office in Washington, D.C., on the 24th day of May 1977.

The Board in the "Baggage Liability Rules Case," 45 C.A.B. 182 (1966), established the minimum lawful liability rules for the carriage of passenger baggage on local service and trunkline air carriers in air transportation within the 48 contiguous states and the District of Columbia. Excluded from the scope of the original investigation was the transportation of baggage in overseas, Alaskan and Hawaiian markets. Subsequent to the original case, the Board certificated several new air carriers to provide scheduled interstate service which were never made subject to these rules including: Air Midwest, Inc., Air New England, Inc., Aspen Airways, Inc., Pan American World Airways, Inc., and Wright Air Lines, Inc.[1] Also, various other certificated carriers that transport baggage are not subject to these rules.

In the "Domestic Baggage Liability Rules Investigation," Docket 27589, Order 77-2-9, February 2, 1977, the Board required various modifications in the carriers' liability rules, among other things raising the minimum limitation on liability from $500 to $750. In Order 77-2-9, the Board noting that the earlier case was applicable only to domestic trunkline and local service carriers expressly extended the provisions of its new order to all certificated air carriers engaged in interstate or overseas air transportation of persons.

[1] See Orders of certification: 76-9-165, 74-10-102, E-24829, 76-9-168 and 69-8-165.

The earlier order specifically provided:

The limitation of liability of the carriers shall include and apply to loss of, damage to, or delay in delivery of money, jewelry, silverware, negotiable papers, securities, business documents, samples, paintings, antiques, artifacts, manuscripts, irreplaceable books or publications, or other similar valuables. A declaration of value on such valuables in excess of the carrier's limitation of liability shall be accepted by the carrier when such valuable articles are not included in checked baggage.[3]

It appears that certain carriers hereinafter named deeming themselves not bound by the earlier order (45 C.A.B. at 191) have tariff provisions on file expressly exculpating them from liability for valuables in derogation of the express provisions of the earlier order regarding a passenger's valuables. We perceive no reason why this gap between the Board's earlier order and the Board's later orders[4] should exempt some carriers from liability for the mishandling of valuables.[4]

We, therefore, tentatively find and conclude that Air Midwest, Inc., Air New England, Inc., Alaska Airlines, Inc., Aloha Airlines, Inc., Aspen Airways, Inc., Capitol International Airways, Inc., Evergreen International Airlines, Inc., Kodiak-Western Alaska Airlines, Inc., McCulloch International Airlines, Inc., Modern Air Transport, Inc., Overseas National Airways, Inc., Pan American World Airways, Inc., Reeve Aleutian Airways, Inc., Trans International Airlines, Inc., World Airways, Inc., and Wright Air Lines, Inc., shall be bound by the "Baggage Liability Rules Case, Docket 15229, particularly as to liability for valuables, and as modified by the Domestic Baggage Liability Rules Investigation," Docket 27589, for all interstate and overseas air transportation as if they were certificated carrier parties to those proceedings.[5]

Interested persons will be given twenty days following service of this order to show cause why the tentative findings and conclusions set forth herein should not be made final. We expect such persons to support their objections, if any, with detailed answers, specifically setting forth the findings and conclusions to which objection is taken. Such objections should be accompanied by arguments of fact or law and should be supported by legal precedent or detailed economic analysis. If an evidentiary hearing is requested, the objector should state in detail why such a hearing is considered necessary, and what relevant and material facts he would expect to establish through such a hearing. General, vague, or unsupported objections will not be entertained.

Accordingly, it is ordered, That: 1. All interested parties, and particularly Air Midwest, Inc., Air New England, Inc., Alaska Airlines, Inc., Aloha Airlines, Inc., Aspen Airways, Inc., Capitol International Airways, Inc., Evergreen International Airlines, Inc., Kodiak-Western Alaska Airlines, Inc., McCulloch International Airlines, Inc., Modern Air Transport, Inc., Overseas National Airways, Inc., Pan American World Airways, Inc., Reeve Aleutian Airways, Inc., Trans International Airlines, Inc., World Airways, Inc., and Wright Air Lines, Inc., are hereby directed to show cause why the Board shall not make final its tentative findings and conclusions stated herein with respect to their baggage rules, particularly as to their liability for valuables pursuant to Dockets 15529 and 27589;

2. Any interested persons having objections to the issuance of an order making final the proposed findings and conclusions set forth herein shall, within 20 days after service of a copy of this order, file with the Board and serve upon all certificated air carriers a statement of objections together with a summary of testimony, statistical data, and such evidence as is expected to be relied upon to support the stated objections;

3. If timely and properly supported objections are filed, full consideration will be accorded the matters or issues raised by the objections before further action is taken by the Board; and

4. In the event no objections are filed, all further procedural steps will be deemed to have been waived, and the matter will be submitted to the Board for final action.

This order will be published in the FEDERAL REGISTER.

By the Civil Aeronautics Board.

PHYLLIS T. KAYLOR,
Secretary.

[FR Doc.77-15371 Filed 5-27-77;8:45 am]

[Docket No. 27573; Agreement C.A.B. 26621; Order 77-5-121]

IATA

Agreement on Specific Commodity Rates; Order

Issued under delegated authority May 23, 1977.

An agreement has been filed with the Board pursuant to section 412(a) of the Federal Aviation Act of 1958 (the Act) and Part 261 of the Board's Economic Regulations between various air carriers, foreign air carriers, and other carriers embodied in the resolutions of Traffic Conference 1 of the International Air Transport Association (IATA). The agreement was adopted at the 44th Meeting of the TC1 Specific Commodity Rates Board in Vancouver held May 9, 1977.

The agreement contains revisions to the specific commodity rate structure within TC1 (South America/Central America). Such rates are not combinable with rates to/from U.S. points and we will therefore disclaim jurisdiction.

Pursuant to authority duly delegated by the Board in the Board's Regulations, 14 CFR 385.14, it is not found that Agreement C.A.B. 26621 affects air transporation within the meaning of the Act.

Accordingly, it is ordered, That: Jurisdiction be disclaimed with respect to Agreement C.A.B. 26621.

Persons entitled to petition the Board for review of this order, pursuant to the Board's Regulations, 14 CFR 385.50, may file such petitions within ten days after the date of service of this order.

This order shall be effective and become the action of the Civil Aeronautics Board upon expiration of the above period, unless within such period a petition for review is filed or the Board gives notice that it will review this order on its own motion.

This order will be published in the FEDERAL REGISTER.

PHYLLIS T. KAYLOR,
Secretary.

[FR Doc.77-15369 Filed 5-27-77;8:45 am]

[Docket No. 27573; Agreement C.A.B. 26620 R-1 and R-2; Order 77-5-122]

IATA

Agreement on Specific Commodity Rates; Order

Issued under delegated authority May 23, 1977.

An agreement has been filed with the Board pursuant to section 412(a) of the Federal Aviation Act of 1958 (the Act) and Part 261 of the Board's Economic Regulations between various air carriers, foreign air carriers, and other carriers embodied in the resolutions of the Joint Traffic Conferences of the International Air Transport Association (IATA), and adopted pursuant to the provisions of Resolution 590 dealing with specific commodity rates.

The agreement names one additional specific commodity rate under an existing commodity description and adds one new rate with a new specific commodity description as set forth below, reflecting reductions from general cargo rates; and were adopted pursuant to unprotested notice to the carriers and promulgated in an IATA letter dated April 20, 1977

Agreement CAB	Specific commodity Item No.	Description and rate [1]
26620: R-1.....	9274	Skis, skipoles, ski bindings: 124 c/kg, minimum weight 500 kg; 112 c/kg, minimum weight 1,000 kg; from Gothenburg to New York/Montreal.
R-2.....	9275	Ice hockey equipment:[2] 124 c/kg,[3] minimum weight 500 kg; 112 c/kg,[3] minimum weight 1,000 kg; from Gothenburg to New York/Montreal.

[1] Subject to applicable currency conversion factors as shown in tariffs.
[2] New description.
[3] Expires Dec. 31, 1978.

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[3] 45 C.A.B. at 191.
[4] Orders 77-2-9, 77-4-73; and ER-995.
[4] Thus ER-995, April 15, 1977, amending § 221.176 of the Board's Regulations to conform the notice provisions to the new $750 liability limitation struck former § 221.176(c) which maintained the earlier distinction between trunkline and local service carriers on the one hand and the other certificated carriers on the other.
[5] Following the initial certification of Air Midwest, Air New England and Pan American to provide interstate air transportation within the 48 contiguous states, the Board, by Orders to Show Cause, afforded passengers traveling on these carriers the protection of the ratemaking standards of the Domestic Passenger-Fare Investigation. See Orders 76-11-3, 74-10-102 and 76-12-36.

Pursuant to authority duly delegated by the Board in the Board's Regulations, 14 CFR 385.14, it is not found that the subject agreement is adverse to the public interest or in violation of the Act, provided that approval is subject to the conditions hereinafter ordered.

Accordingly, it is ordered, That: Agreement C.A.B. 26620 be and hereby is approved, provided that (a) approval shall not constitute approval of the specific commodity descriptions contained therein for purposes of tariff publications; (b) tariff filings shall be marked to become effective on not less than 30 days' notice from the date of filing; and (c) where a specific commodity rate is published for a specified minimum weight at a level lower than the general commodity rate applicable for such weight, and where a general commodity rate is published for a greater minimum weight at a level lower than such specific commodity rate, the specific commodity rate shall be extended to all such greater minimum weights at the applicable general commodity rate level.

Persons entitled to petition the Board for review of this order, pursuant to the Board's Regulations 14 CFR 385.50, may file such petitions within ten days after the date of service of this order.

This order shall be effective and become the action of the Civil Aeronautics Board unless within such a period a petition for review is filed or the Board gives notice that it will review this order on its own motion.

This order will be published in the FEDERAL REGISTER.

PHYLLIS T. KAYLOR,
Secretary.

[FR Doc.77-15370 Filed 5-27-77;8:45 am]

CIVIL SERVICE COMMISSION

FEDERAL EMPLOYEES PAY COUNCIL

Meeting

In accordance with the Federal Advisory Committee Act, Public Law 92-463, the President's agent announced the following meeting:

NAME: Federal Employees Pay Council.

DATE AND TIME: June 15, 1977, 2 p.m.

PLACE: U.S. Civil Service Commission, 1900 E Street, N.W., Washington, D.C., Room 5A06A.

TYPE OF MEETING: Open.

CONTACT PERSON:
Claire Kline, Committee Management staff for the President's agent, U.S. Civil Service Commission, 1900 E Street, N.W., Washington, D.C., Telephone (202) 632-5595.

PURPOSE OF COMMITTEE: To make recommendations to the President's agent with respect to the process and procedures leading to, and amounts of, annual comparability adjustments in Federal white-collar pay.

AGENDA: Discussions on the 1977 comparability adjustment for the statutory pay systems of the Federal Government, which are defined in section 5301 of title 5, United States Code.

For the President's agent:

RICHARD H. HALL,
Committee Management Officer for the President's agent.

[FR Doc.77-15542 Filed 5-27-77;9:48 am]

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

BLACK HILLS MARINELAND, INC.

Issuance of Permit To Take Marine Mammals

On March 25, 1977, notice was published in the FEDERAL REGISTER (42 FR 16171), that an application had been filed with the National Marine Fisheries Service by Black Hills Marineland, Inc., D/B/A Marinelife, Box 1243, Rapid City, South Dakota 57701, for a Permit to take three (3) California sea lions (*Zalophus californianus*) for the purpose of public display.

Notice is hereby given that on May 19, 1977, and as authorized by the provisions of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407), the National Marine Fisheries Service issued a Permit for the above taking to Black Hills Marineland, Inc., subject to certain conditions set forth therein. The Permit is available for review by interested persons in the following offices:

Director, National Marine Fisheries Service, 3300 Whitehaven Street, NW., Washington, D.C.;
Regional Director, National Marine Fisheries Service, Northwest Region, 1700 Westlake Avenue North, Seattle, Washington, 98109; and
Regional Director, National Marine Fisheries Service, Southwest Region, 300 South Ferry Street, Terminal Island, California 90731.

Dated: May 19, 1977.

WINFRED H. MEIBOHM,
Associate Director, National Marine Fisheries Service.

[FR Doc.77-15289 Filed 5-27-77;8:45 am]

HOGLE ZOOLOGICAL GARDEN

Issuance of Permit To Take Marine Mammals

On March 25, 1977, notice was published in the FEDERAL REGISTER (42 F.R. 16171), that an application had been filed with the National Marine Fisheries Service by Hogle Zoological Garden, 2600 Sunnyside Avenue, P.O. Box 8475, Salt Lake City, Utah 84108, for a permit to take four (4) California sea lions (*Zalophus californianus*) for the purpose of public display.

Notice is hereby given that on May 23 1977, and as authorized by the provisions of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407), the National Marine Fisheries Service issued a permit for the above taking to Hogle Zoological Garden subject to certain conditions set forth therein. The permit is available for review by interested persons in the following offices:

Director, National Marine Fisheries Service, 3300 Whitehaven Street, N.W., Washington, D.C.;
Regional Director, National Marine Fisheries Service, Northwest Region, 1700 Westlake Avenue North, Seattle, Washington 98109; and
Regional Director, National Marine Fisheries Service, Southwest Region, 300 South Ferry Street, Terminal Island, California 90731.

Dated: May 23, 1977.

WINFRED H. MEIBOHM,
Associate Director National Marine Fisheries Service.

[FR Doc.77-15291 Filed 5-27-77;8:45 am]

LOUIS SCARPUZZI ENTERPRISES, INC.

Issuance of Permit To Take Marine Mammals

On February 10 and 17, 1977, notices were published in the FEDERAL REGISTER (42 FR 8403/42) F.R. 9698) that applications had been filed with the National Marine Fisheries Service by Louis Scarpuzzi Enterprises, Inc., 339 Riverside Drive, Fort Myers, Florida 33905, for permits to take five (5) Atlantic bottlenosed dolphins (*Tursiops truncatus*) and five (5) California sea lions (*Zelophus californianus*) for public display.

Notice is hereby given that on May 20, 1977, and as authorized by the provisions of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407), the National Marine Fisheries Service issued a Permit for the above taking to Louis Scarpuzzi Enterprises, Inc., subject to certain conditions set forth therein. The Permit is available for review by interested persons in the following offices:

Director, National Marine Fisheries Service, 3300 Whitehaven Street, N.W., Washington, D.C.;
Regional Director, National Marine Fisheries Service, Southeast Region, Duval Building, 9450 Gandy Boulevard, St. Petersburg, Florida 33702; and
Regional Director, National Marine Fisheries Service, Southwest Region, 300 South Ferry Street, Terminal Island, California 90731.

Dated: May 20, 1977.

WINFRED H. MEIBOHM,
Associate Director National Marine Fisheries Service.

[FR Doc.77-15290 Filed 5-27-77;8:45 am]

Office of the Secretary

COMMERCE TECHNICAL ADVISORY BOARD

Meeting

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. I (Supp. V, 1975), notice is hereby given that the Commerce Technical Advisory Board will hold a meeting on Wednesday, June 22, 1977 from 9:45 a.m. until 5 p.m. in Room 4830, Department of Commerce, 14th and Constitution Avenue NW., Washington, D.C.

The Board was established to study and evaluate the technical activities of

the Department of Commerce and recommend measures to increase their value to the business community. Tentative agenda items include:

(a) Continuation of Discussion on Undesirable Impacts of Regulations on Land, Water and Air.

(b) Discussion on Formation of Panel to Study (a) above.

(c) Review of Final Draft Statement on Technology.

The meeting will be open to public observation. The public may submit written statements or inquiries to the chairman before or after the meeting. A limited number of seats will be available to the public and to the press on a first-come, first-served basis.

Copies of minutes and materials distributed will be made available for reproduction, following certification by the Chairman, in accordance with the Federal Advisory Committee Act, at the U.S. Department of Commerce, Central Reference and Inspection Facility, Washington, D.C. 20230.

Further information may be obtained from Mrs. Florence S. Feinberg, Administrator, Room 3865, U.S. Department of Commerce, Washington, D.C. 20230. Telephone 202-377-5065.

Dated: May 24, 1977.

JORDAN J. BARUCH,
Assistant Secretary for Science and Technology.

[FR Doc.77-15364 Filed 5-27-77;8:45 am]

COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

CERTAIN APPAREL PRODUCTS IN CHIEF VALUE LEATHER AND CHIEF WEIGHT TEXTILE MATERIALS

Extension of Exemption From Bilateral Textile Agreements

MAY 26, 1977.

AGENCY: Committee for the Implementation of Textile Agreements.

ACTION: Extending until July 1, 1977 the exemption from bilateral textile agreements of certain apparel products which are in chief weight textile materials and chief value nontextile materials.

SUMMARY: A notice published in the FEDERAL REGISTER on March 21, 1977 (42 FR 15359) announced establishment of TSUS 791.74 to cover "certain wearing apparel of leather which is: In part of textile materials, the aggregate weight of which exceeds the weight of any individual nontextile material contained therein," and delayed its inclusion under the textile import restraint program until May 1, 1977. The exemption was extended through May 31, 1977 (42 FR 21155). The purpose of the present notice is to announce a further extension of the exemption through June 30, 1977.

EFFECTIVE DATE: June 1, 1977.

FOR FURTHER INFORMATION CONTACT:

Leonard A. Mobley, Director, Trade Analysis Division, Office of Textiles, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-4212).

ROBERT E. SHEPHERD,
Chairman, Committee for the Implementation of Textile Agreements, and Deputy Assistant Secretary for Resources and Trade Assistance, U.S. Department of Commerce.

[FR Doc.77-15480 Filed 5-27-77;8:45 am]

ENVIRONMENTAL PROTECTION AGENCY

[FRL 738-1]

CSDOC WASTEWATER MANAGEMENT PROGRAM

Availability of Draft Environmental Impact Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, the Environmental Protection Agency has prepared a draft environmental impact statement (DEIS) for the County Sanitation Districts of Orange County Wastewater Management Program, California.

The proposed project involves additions to the existing treatment facilities of the County Sanitation Districts of Orange County located in Fountain Valley and Huntington Beach, California.

This DEIS was transmitted to the Council on Environmental Quality on May 20, 1977. In accordance with CEQ's notice of availability, comments are due on July 11, 1977. Copies of the DEIS are available for review and comment from: Project Officer, US Environmental Protection Agency, Region IX, 100 California Street, San Francisco, California 94111 (telephone 415-556-3458).

To receive additional public comments, the Environmental Protection Agency, Region 9, will hold open public hearings during June, 1977. The times and places for these hearings will be provided at a later date. All interested parties are invited to express their views at the hearings. To ensure the accuracy of the record, oral statements should be accompanied by a written statement. Oral statements should summarize extensive written materials to allow time for all interested persons to be heard.

Copies of the DEIS are available for public inspection at the following locations:

Environmental Protection Agency, Region IX Library, 100 California Street, San Francisco, California.

Environmental Protection Agency, Public Information Reference Unit, Room 2922, Waterside Mall, 401 M Street, SW., Washington, D.C.

Information copies of the DEIS are available at cost (10 cents/page) from the Environmental Law Institute, 1346 Connecticut Avenue, NW, Washington, DC 20036. Please reference ELR No. 70619.

Copies of the DEIS have been sent to various Federal, State, and local agencies, and interested individuals as outlined in the CEQ Guidelines.

Dated: May 24, 1977.

WILLIAM D. DICKERSON,
Acting Director, Office of Federal Activities.

[FR Doc.77-15361 Filed 5-27-77;8:45 am]

[FRL 738-2]

JACKSON WASTEWATER TREATMENT SYSTEM

Availability of Draft Environmental Impact Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, the Environmental Protection Agency has prepared a draft environmental impact statement (DEIS) for the Jackson Wastewater Treatment System, Town of Jackson, Wyoming.

The EPA, Region VIII, proposes to fund Federal matching funds for wastewater treatment for the Town of Jackson, Wyoming, through the authority of the Federal Water Pollution Control Act Amendments, 1972. The present facility does not have sufficient capacity to treat present or future wastewater flows adequately to meet prescribed discharge permit limitations.

The DEIS was transmitted to the Council on Environmental Quality (CEQ) on May 17, 1977. In accordance with CEQ's notice of availability, comments are due on July 11, 1977. Copies of the DEIS are available for review and comment from: Mr. Wes Wilson, Environmental Protection Agency, Region 8, 1860 Lincoln Street, Denver, Colorado 80203 (telephone 303-837-4331.

To receive additional public comments, the Environmental Protection Agency, Region 8, will hold an open public hearing on this DEIS on June 28, 1977 at 7 pm at the Teton County Court House. All interested persons are invited to express their views at this hearing. To ensure the accuracy of the record, oral statements should be accompanied by a written statement. Oral statements should summarize extensive written materials to allow time for all interested persons to be heard.

Copies of the DEIS are available for public inspection at the following locations:

Environmental Protection Agency, Region VIII Library, 1860 Lincoln Street, Denver, Colorado 80203.

Environmental Protection Agency, Public Information Reference Unit, Room 2922, Waterside Mall, 401 M Street, SW., Washington, DC 20460.

Information copies of the DEIS are available at cost (10 cents/page) from the Environmental Law Institute, 1346 Connecticut Avenue, NW., Washington, D.C. 20036. Please reference ELR No. 70598.

Copies of the DEIS have been sent to various Federal, State and local agen-

cies, and interested individuals at outlined in the CEQ Guidelines.

Dated: May 24, 1977.

WILLIAM D. DICKERSON,
Acting Director,
Office of Federal Activities.

[FR Doc.77-15360 Filed 5-27-77;8:45 am]

[FRL 715-5]

NEW MOTOR VEHICLE CERTIFICATION

Intent To Develop Rulemaking

AGENCY: Environmental Protection Agency.

ACTION: Notice of intent to develop rulemaking.

SUMMARY: The Environmental Protection Agency is giving consideration to amending the certification regulations (40 CFR Part 86) which apply to new light-duty vehicles and new light-duty trucks. The amendments to the certification regulations would permit EPA to test vehicles in any state of adjustment to which they can be set, rather than set precisely to the manufacturers' specifications in such respects as carburetor and distributor calibrations.

FOR FURTHER INFORMATION CONTACT:

Paul Lapsley, Regulatory Management Staff, Office of Mobile Source Air Pollution Control (AW-455), Environmental Protection Agency, Washington, D.C. 20460 (202-755-0596).

SUPPLEMENTARY INFORMATION: The need for amending the certification regulations became apparent when data, collected from vehicles in actual use, revealed that significant numbers of vehicles which were certified as being capable of meeting applicable emissions standards (when properly maintained and operated) were exceeding the standards in actual use. Analysis of these data, and data collected in other testing programs, indicate that failures to meet the emissions standards are most closely related to maladjustments.

The present certification regulations provide that test vehicles be set to the nominal calibrations specified by the manufacturer. This proposed amendment to the procedures would permit EPA to set test vehicles' calibrations anywhere within the ranges of adjustments available on the vehicles prior to making the official emission test. Thus, EPA will be able to select settings which represent calibrations least likely to meet the standards. If certification vehicles "maladjusted" in this way can meet the standards throughout their useful lives, then even maladjusted vehicles in use should meet the standards, if they have been built according to the certified design and if they have otherwise been properly maintained and used (e.g., spark plugs and oil changed on schedule, not used for drag racing, etc.).

These certification test procedure changes should alleviate in-use problems arising from the ease with which critical engine parameters can be (and are) maladjusted in the field. Such maladjustment may result from incompetence on the part of those servicing cars, or it may be intentional adjustment performed to improve driving characteristics such as cold starting, acceleration, etc. While these test procedure changes are not likely to solve the maladjustment problem completely, they should reduce the incidence of serious maladjustment.

Statutory authority for this intended action would be provided by sections 206 and 301 of the Clean Air Act, 42 U.S.C. 1857f-5 and 1857g.

Dated: May 23, 1977.

EDWARD J. TUERK,
Acting Assistant Administrator,
Office of Air and Waste Management.

[FR Doc.77-15349 Filed 5-27-77;8:45 am]

[FRL 738-8; OPP-30000/15]

PESTICIDE PROGRAMS

Rebuttable Presumption Against Registration and Continued Registration of Pesticide Products Containing Diallate

The Deputy Assistant Administrator, Office of Pesticide Programs, Environmental Protection Agency (EPA), has determined that a rebuttable presumption exists against registration and continued registration of all pesticide products containing diallate [S-(2,3-dichloroally) diisopropylthiocarbamate].[1]

I. REGULATORY PROVISIONS

A. *General.* Title 40, 162.11, of the Code of Federal Regulations for the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended (86 Stat. 971, 89 Stat. 751, 7 U.S.C. 136 et seq.), provides that a rebuttable presumption against registration shall arise if the Agency determines that a pesticide meets or exceeds any of the risk criteria relating to acute and chronic toxic effects set forth in § 162.11(a)(3). If it is determined that such a rebuttable presumption has arisen, the regulations require that the registrant be notified by certified mail and afforded an opportunity to submit evidence in rebuttal of the presumption. In addition, the Agency has determined that the public should also be given notice of the bases for the presumption to provide an opportunity for comment and to solicit additional information relevant to the presumption.

[1] This notice of presumption differs in presentation from previously published notices. Specifically, in the past the Agency has published a notice of rebuttable presumption which included a discussion of the substantive reasons for the action taken. This notice does not include such a discussion, but instead incorporates the substantive discussion contained in the lengthy Position Document which is also published. These changes were made in order to streamline the process of information dissemination while providing as much information as possible to affected and interested parties.

A notice of rebuttable presumption is issued when the evidence related to risk meets the criteria set forth in § 162.11(a)(3). It is emphasized that a notice of rebuttable presumption against registration and continued registration of a pesticide is not a notice of intent to cancel the registration of a pesticide, and may or may not lead to cancellation. The notice of intent to cancel is issued only after the risks and benefits of a pesticide are carefully considered and it is determined that the pesticide may generally cause unreasonable adverse effects to the environment.

Accordingly, all registrants and applicants for registration are invited pursuant to § 162.11(a)(4) to submit evidence in rebuttal of this presumption, and, in the case of oncogenicity, to submit information which relates to the assessment of oncogenic risks as set forth in the Agency's Interim Procedures and Guidelines for Health Risk and Economic Impact Assessment of Suspected Carcinogens (May 25, 1976; 41 FR 21402). Registrants and other interested parties may also submit for consideration data on benefits which they believe would justify registration or continued registration. In addition, any registrant may petition the Agency to voluntarily cancel a current registration pursuant to section 6(a)(1) of FIFRA.

B. *Rebuttal criteria.* Section 162.11(a)(4) provides that a registrant may rebut the presumption by sustaining the burden of proving:

(1) In the case of a pesticide presumed against pursuant to the acute toxicity or lack of emergency treatment criteria, "that when considered with the formulation, packaging, method of use, and proposed restrictions on and directions for use and widespread and commonly recognized practices of use, the anticipated exposure to an applicator or user and to local, regional or national populations of nontarget organisms is not likely to result in any significant acute adverse effects" (40 CFR 162.11(a)(3)(i) and (iii);

(2) In the case of a pesticide presumed against pursuant to the chronic toxicity criteria, "that when considered with proposed widespread and commonly recognized practices of use, the pesticide will not concentrate, persist or accrue to levels in man or the environment likely to result in any significant chronic adverse effects" (40 CFR 162.11(a)(ii); or

(3) In either case, that "the determination by the Agency that the pesticide meets or exceeds any of the criteria for risk was in error."

C. *Benefits information.* In addition to submitting evidence to rebut the presumption of risk, § 162.11(a)(5)(iii) provides that a registrant "may submit evidence as to whether the economic, social and environmental benefits of the use of the pesticide subject to the presumption outweigh the risk of use." If the risk presumptions are not rebutted, the benefit

evidence submitted by the registrant,[1] applicants and other interested persons will be considered by the Administrator in determining the appropriate regulatory action. Specifically, § 162.11(a)(5)(iii) provides that if the "benefits appear to outweigh risks," the Administrator may (1) issue a notice of intent to hold a hearing pursuant to section 6(b)(2) of FIFRA rather than a notice of intent to cancel or (2) deny registration pursuant to section 3(c)(6) of FIFRA. Alternatively, if the "benefits do not appear to outweight the risks, the Administrator shall issue a notice pursuant to section 3(c)(6) or section 6(b)(1) of the Act, as appropriate." Moreover, if at any time the Administrator determines that a pesticide poses an "imminent hazard" to humans or the environment, a notice of suspension may be issued pursuant to section 6(c) of the Act.

Stated below is the § 162.11(a)(3) risk criterion which the Agency has found to have been met or exceeded by registrations and applications for registration of pesticide products diallate. The Agency's basis for concluding that this risk criterion has been met or exceeded is set out in "Diallate: Position Document 1", which follows. This document was prepared by an Agency Working Group and later revised in accordance with the directions of the DAA, OPP, as affected in a memorandum dated May 13, 1977. Copies of the attachments to the Position Document which are not published with this notice are available for public inspection. Information protected from disclosure pursuant to FIFRA section 10 cannot be provided. Specific inquiries concerning the Position Document should be directed to Project Manager James Stewart, Office of Special Pesticide Reviews (WH-566), EPA, Room 447, East Tower, 401 M St. SW., Washington, D.C. 20460 (202-755-8050).

II. Presumption

A. *Oncogenicity.* 40 CFR 162.11(a)(ii)(A) provides, "A rebuttable presumption shall arise if a pesticide's ingredient(s) * * * (i)nduces oncogenic effects in experimental mammalian species or in man as a result of oral, inhalation or dermal exposure * * *" As a further clarification of the provision, the preamble to the Agency's Interim Procedures and Guidelines for Health Risk and Economic Impact Assessment of Suspected Carcinogens (May 25, 1976; 41 FR 21402) states that "a substance will be considered a presumptive cancer risk when it causes a statistically significant excess incidence of benign or malignant tumors in humans or animals."

On the basis of scientific studies and information summarized in the Position Document, the Agency has concluded that this risk index has been exceeded by all registrations and applications for registration of pesticide products containing diallate, and that a rebuttable presumption against new or continued registration of such products has therefore arisen.

III. Grounds for Pesticide Review in Addition to Rebuttable Presumption Criteria

A. *General.* In addition to the risk criteria set forth in 40 CFR 162.11(a)(3) which require the issuance of a notice of rebuttable presumption against registration or continued registration and a determination by the Administrator to register or cancel a pesticide, 40 CFR 162.11(a)(6) provides that the Administrator may determine that a pesticide should be cancelled or that a hearing should be held if the pesticide poses a substantial question of safety to man or the environment "based on toxicological data, epidemiological studies, use history, accident data, monitoring data, or such other evidence as is available to the Administrator."

A determination to cancel or deny registration of a pesticide or to hold a hearing based upon such data and a finding that a pesticide poses a substantial question of safety need not be preceded by public notice and opportunity for rebuttal prior to the administrative adjudicatory hearing procedure of section 6(b) of the Act. However, where the Agency is using a notice of rebuttal presumption against registration or continued registration based on the risk criteria of 40 CFR 162.11(a)(3), it is in the public interest to include in that notice all evidence which may indicate additional grounds for determining that a pesticide causes unreasonable adverse effects on the environment. Accordingly, evidence derived from a diallate study, that suggests that diallate may produce neurotoxic effects in humans, has been included in this notice.

B. *Neurotoxic effects.* The information concerning the neurotoxic effects of diallate is summarized in the Position Document. Diallate caused delayed neurotoxic effects in test animals at a dose level of 0.312 g/kg. However, because this level was the only level tested in the study, and there is no information to indicate a no observable effect level, or to determine dose/response relationships, it is not possible at this time to make a judgment as to what constitutes a safe level for diallate. Delayed neurotoxic effects are of concern to the Agency because some studies show these effects to be irreversible.

For these reasons, the Agency is soliciting comments on the available evidence. In addition, the Agency is requiring registrants to complete appropriate additional neurotoxicity studies on appropriate experimental animal species and submit the results to the Agency within 180 days of the issuance of this notice. Registrants who do not comply with the request for submission of additional data within the time provided will be subject to cancellation on the basis pursuant to FIFRA section 6(b)(1).

IV. Registrations and Products Subject to the Notice

All registrants and applicants for registration listed below are being notified by certified mail of the rebuttable presumption existing against registration and continued registration of their products.

The registrants and applicants for registration shall have 45 days from the date this notice is sent or until July 11, 1977, to submit evidence in rebuttal of the presumption. However, the Administration may, for good cause shown, grant an additional 60 days during which such evidence may be submitted. Notice of such an extension, if granted, will appear in the Federal Register.

V. Duty to Submit Information on Adverse Effects

Registrants are required by law to submit to EPA any additional information regarding any adverse effects on man or the environment which comes to a registrant's attention at any time, pursuant to section 6(a)(2) of FIFRA and 40 CFR 162.8(d). If any registrant of diallate products has any published or unpublished information, studies, reports, analyses, or reanalyses regarding any adverse effects in animal species or humans, residues, and claimed or verified accidents to humans, domestic animals, or wildlife, which has not been previously submitted to EPA, the material must be submitted immediately. When responding to this notice, each registrant shall submit a written certification to the Agency that all information regarding any adverse effects known to the registrant has been submitted. In addition, the registrants should notify EPA of any studies currently in progress, including the purpose of the study, the protocol, the approximate completion date, and a summary of all results observed to date.

VI. Public Comments

During the time allowed for submission of rebuttal evidence, comments on the presumptions set forth in this notice and on the material contained in the Position Document are solicited from the public. In particular, any documented episodes of adverse effects to humans, domestic animals, or wildlife,

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[1] Registrants or other interested persons who desire to submit benefit information should consider submitting benefit information on the following subjects, along with any other relevant information they desire to submit.

1. Identification of the major uses of the pesticide, including estimated quantities used by crop or other application.

2. Identification of the minor uses of the pesticide, including estimated quantities used by category such as a specific agricultural crop.

3. Identification of registered alternative products for the uses set forth in (1) and (2) above, including an estimate of their availability.

4. Determination of the change in costs to the user of providing equivalent pesticide treatment with any available substitute products.

5. Assessment of regulation impact upon user productivity (e.g. yield per acre and/or total output) from using available substitute pesticides or from using or no other pesticide.

6. If the impacts upon either user costs or productivity are significant, a qualitative assessment of the regulation's impact on production of major agricultural commodities and retail food prices of such commodities.

and information as to any laboratory studies in progress or completed, are requested to be submitted to the EPA as soon as possible. Specifically, information on reproductive and mutagenic effects are solicited as well as information on the fate and effects of diallate, is impurities, metabolites, and degradation products on flora and fauna, particularly animals with metabolism similar to man. Similarly, any studies or comments on the benefits from the use of diallate are requested to be submitted. All comments and information received, as well as any other relevant information and analysis thereof, which come to the attention of the Agency may serve as a basis for final determination pursuant to § 162.11(a)(5).

All comments and information should be sent to:

Federal Register Section, Technical Services Division (WH–569), Room 401 East Tower, 401 M Street SW., Washington, D.C. 20460.

Three copies of the comments or information should be submitted if possible to facilitate the work of the Agency and others interested in inspecting them. The comments and information should bear the identifying notation "OOP–30000/15." Comments and information received within the specified time limit shall be considered before it is determined whether a notice shall be issued in accordance with § 162.11(a)(5)(ii).

Comments received after the specified time period will be considered only to the extent feasible consistent with the time limits imposed by § 162.11(a)(5)(ii). All written comments and information filed pursuant to this notice will be available for public inspection in the office of the Federal Register Section from 8:30 a.m. to 4 p.m. on normal working days.

Interested persons are encouraged to take advantage of the opportunity to inspect Agency files during normal working hours since (1) all of the information received may serve as a basis for final determination pursuant to § 162.11(a)(5) and (2) the Agency will not generally publish a summary of information received in the FEDERAL REGISTER at the close of the rebuttal period.

Your cooperation is solicited in identifying any errors or omissions which may have been made in the following computer listings. Corrections to the listings may not necessarily be published in the FEDERAL REGISTER, but rather handled by mail with affected parties. Omissions will be corrected by notice in the FEDERAL REGISTER.

Dated: May 24, 1977.

JAMES M. CONLON,
Acting Deputy Assistant Administrator for Pesticide Programs.

FEDERALLY REGISTERED PRODUCTS CONTAINING DIALLATE

Registrant No., Name and Address, and Product No. and Name

000449, Techne Corp., c/c Farmland Ind., Inc., Agricultural Chemicals Div., P.O. Box 7305, Kansas City, MO 64116, 00448 Dexil 10 Granular.

000524, Monsanto Company, Agricultural Products, 800 N. Lindbergh Blvd., St. Louis, MO 63166, 00119 Avadex Selective Herbicide Emulsifiable Concentrate; 00151 Granular Avadex; 00306 Avadex Technical.

008399, Great Western Sugar Co., Box 5308 Terminal Annex, Denver, CO 80200, 00001 GW Pre-Beta-1 10 percent Granules; 00002 GW Pre-Beta-1 Liquid; 00003 GW Pre-Beta-2 Liquid; 00004 GW Pre-Beta-2 10 percent Granules.

DIALLATE: POSITION DOCUMENT 1

Prepared by Diallate Working Group, James Stewart, Project Manager, U.S. Environmental Protection Agency, April 18, 1977.

Revised in accordance with the directions of the Deputy Assistant Administrator for Pesticide Programs, as reflected in a memorandum dated May 31, 1977.

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I. BACKGROUND

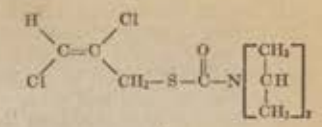
A. NOMENCLATURE

Diallate is marketed under the trade name, AVADEX®. Other names that have been used are CP 15 336 and DATC. The American Chemical Society's Chemical Abstracts Service has assigned the name S-(2,3-dichloro-2-propenyl) bis(1-methylethyl) carbamothioate and the number CAS 230 3-16-4 to diallate. S-(2, 3-Dichlorallyl) diisopropylthiocarbamate is the name placed on labels of pesticide products.

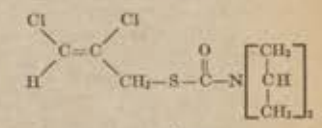
B. CHEMISTRY

1. *General.* Diallate is a volatile, amber colored liquid with a melting point of 25–30° C. It is soluble in most organic solvents but only slightly soluble in water (14 ppm at 25° C).

Structural formula:



trans isomer



cis isomer

$C_{10}H_{17}Cl_2NOS$

Molecular weight=270.2

2. *Residues in food.* The only available information on diallate residues in food comes from data submitted by Monsanto in their tolerance requests of 1967 (Pesticide Petition No. 607) and 1969 (Pesticide Petition No. 832). In PP No. 607, data on 49 samples of 13 crops (an average of 4 samples/crop) indicated that diallate residues were below 0.1 ppm. However, the analytical methodology used to obtain this data was less sensitive (0.1–0.2 ppm) when compared with the methodology (<0.02 ppm) followed in the study submitte din PP No. 832. The latter data was obtained from 17 samples from 5 additional crops and lowed in the study submitted in PP No. 607. Residues were not found at or above the level of the method of detection, <0.02 ppm.

Analysis for diallate residues has never been done by the Food and Drug Administration Total Diet Program (Market Basket Survey) or by the U.S. Department of Agriculture meat and poultry inspection program. Joint meetings of the World Health Organization and the Food and Agriculture Organization on pesticide residues have never reviewed residue data on diallate.

3. *Fate in the environment.*—a. *Water.* No information is currently available on the fate of diallate in water.

b. *Air.* Diallate has a vapor pressure of 1.5×10^{-4} mm Hg at 25° C. Its evaporation rate is 10.63×10^{-8} mol/cm hr at 20° C (1). Since diallate is volatile, use directions recommend incorporation into the upper 2 inches of soil as soon as possible after application, preferably on the day of application.

Diallate is not currently included in the EPA National Air Monitoring Program for Pesticides.

c. *Soil.* Diallate has been reported to disappear most rapidly from soils containing living microbial populations (2). In experiments with radiolabeled diallate, 50 percent of the diallate applied initially (2.5 ppm) had disappeared after 1.5 to 4 weeks in nonsterile soils compared with 20 weeks for sterile soils. This disappearance has been reported to be a result of degradation by soil microflora rather than by volatilization, adsorption or retention by soil microflora. Other studies have reported the

degradation of diallate by isolated soil fungi (3). Mills and Alley report two major information gaps on diallate: (a) the effect of diallate on the major soil biota and (b) the identity of plant and soil metabolites of diallate (4).

Analysis for diallate residues is not currently included in the EPA National Soils Monitoring Program.

d. *Plants.* Plant metabolism studies with radiolabeled diallate on seedlings of barley, flax and sugar beets were submitted in PP No. 607. These studies showed that diallate was rapidly metabolized by the plants. The slowest rate was observed for barley where 74 percent of the radioactivity was released as labelled CO_2 after 11 days. The fastest release was in sugar beets with 87 percent of the radioactivity released as CO_2 after 6 days.

C. MANUFACTURING PROCESS, TECHNICAL PRODUCTS, AND FORMULATIONS

Diallate is prepared by reacting a mixture of diisopropylamine and 1,2,3-trichloropropene with carbonyl sulfide (5).

Technical diallate is available to formulators at 90 percent purity. The remaining 10 percent consists of unreacted intermediates from the manufacturing process which are unkown to EPA. The identity of this material has been requested from the supplier and will be evaluated for potential hazard (6).

Diallate formulations include a granular product that contains 10 percent active ingredient and an emulsifiable concentrate that contains 4 lb active ingredient/gal. The granular product may be used on sugar beets only. The most common form is the emulsifiable concentrate which is sprayed directly onto the soil surface. Commercial formulations contain roughly equal amounts of the cis and trans isomers (7).

D. PRODUCTION

Monsanto Chemical Company is the sole producer of technical diallate in the United States. Production data is confidential information under sections 7(c) and 10 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is therefore presented in Table 1 for EPA use only. The International Agency for Research in Cancer estimates that annual production of diallate in Europe is in the range of 1 to 5 million kg (5).

E. REGISTERED USES

Diallate has been used in the United States as a selective preemergence herbicide since 1960. Current registered uses are for the control of wild oats in sugar beets, flax, barley, corn, forage legumes (alfalfa, alsike clover, red clover, sweet clover), lentils, peas, potatoes, and soybeans. Registered uses also include control of other grasses and broadleaf weeds in sugar beets when combined with pebulate or cycloate. Diallate is applied directly to the soil by spray, broadcast, or band methods in the fall just before the freeze or in the spring before or after seeding but not after emergence. Incorporation into the soil after application is required. Usually only one application per season is made. There are eight Federal registrations of products containing diallate which are held by three registrants.

II. REGULATORY HISTORY

An experimental use permit was obtained by Monsanto in May 1960 for the use of diallate on barley, flax, sugar beets, rapeseed, and sunflowers.

The first registration for a product containing diallate was granted December 9, 1960, to Monsanto (EPA Registration Number 524–119). Use of diallate on corn, forage legumes, lentils, peas, potatoes, safflower, and sugar beets was approved because no residues were detected on these foods.

Monsanto had originally requested (Pesticide Petition No. 607) a tolerance of 0.3 ppm for diallate on the above crops plus soybeans. These tolerances were not granted because of inadequacies in residue and toxicity data submitted by the petitioner. Toxicity data submitted for a 90-day dog feeding study were considered inadequate to establish a "no effect" level (NEL). Ovarian and testicular changes were noted during microscopic examination of these tissues. This petition was withdrawn in December 1967.

A second petition (PP No. 832) was filed by Monsanto in June 1969 for negligible residue tolerances of 0.05 ppm for diallate on corn, forage legumes, lentils, peas, potatoes, safflower, sugar beets, and soybeans. These additional residue data, obtained by a more sensitive analytical method, satisfied the reviewers that they would not expect residues to transfer to meat, milk, eggs, and poultry since no crop residues greater than the background of the untreated samples (<0.02 ppm) were found. Monsanto resubmitted the toxicity data that was in PP No. 607, including the 90-day dog study, but this time a NEL of 3.3 mg/kg/day (25 ppm) was determined for testicular and ovarian changes in the dog. The toxicology review concluded that the proposed tolerances provided an adequate margin of safety to man based on the dog NEL.

Establishment of the 0.05 ppm tolerances was delayed, however, pending the report of the Department of Health, Education, and Welfare Secretary's Commission on Pesticides and Their Relationship to Environmental Health, chaired by Dr. Emil M. Mrak. When this report was issued in December 1969, it recommended that human exposure to diallate be minimized because of evidence of tumor induction in mice fed diallate at 560 ppm for 18 months (8). The Commission judged that these tests were adequately conducted.

After consideration of the Mrak report and the cited mouse studies, the Toxicology Branch, Food and Drug Administration, concluded that with the 2000-fold safety factor, an adequate margin of safety for man was provided by the 0.05 ppm tolerances (9). Tolerances were established on July 28, 1971 (40 CFR 180.277).

III. SUMMARY OF SCIENTIFIC EVIDENCE TO SUPPORT REBUTTABLE PRESUMPTION

The Working Group has determined that the following adverse effects of diallate meet or exceed the criteria for issuance of a rebuttable presumption against registration (RPAR).

A. ONCOGENIC EFFECTS IN TEST ANIMALS

As provided in 40 CFR 162.11(a)(3)(ii)(A), the induction "of oncogenic effects in experimental mammalian species or in man as a result of oral, inhalation or dermal exposure" is basis for an RPAR.

1. *Mice.* The only study of oral administration of diallate to mice was conducted by Innes et al. and resulted in an increased incidence of liver-cell and pulmonary tumors (10, 11). This study provided the basis for the Mrak Commission recommendation that human exposure to diallate be minimized (see section on Regulatory History).

In a 1976 evaluation of the carcinogenic risk of diallate, a working group of the United Nations International Agency for Research on Cancer (IARC) concluded that diallate is carcinogenic in mice after oral administration on the basis of the Innes study (5).

The EPA Carcinogen Assessment Group (CAG) subsequently reviewed this study and concluded that "In mice, the Innes study showed statistically significant and pronounced increases in hepatoma incidence in males of the two tested strains. There were small but statistically significant increases in the incidence of lung adenomas in both sexes in one strain (X) of mice and in males only of the other strain (Y)" (12).

2. *Rats.* In addition to the above mouse study, there have been two studies of long-term oral administration of diallate to rats.

An abstract appeared in 1973 on a study conducted by Ulland et al. at Litton-Bionetics (13). No further information was available for the 1976 IARC working group so their monograph concluded that "inadequate reporting does not allow an evaluation of this experiment" (5). Since the IARC evaluation, the EPA Office of Special Pesticide Reviews (OSPR) has received data verified by the National Cancer Institute on this study (14). Details of this study are given in the CAG report (12). In their review of this study, CAG concluded "the Litton Bionetics study showed a statistically significant increase in malignant tumors, as a whole only at the highest dose in male rats and only at the lower dose in female rats."

Industrial Bio-Test also conducted a rat study in which they concluded "that the neoplastic lesions noted in the test and controls were considered normal for rats of this age and strain" (15).

After evaluating this study, CAG concluded, "the Industrial Bio-Test study in rats showed a statistically significant excess of mammary carcinomas in females" (12).

On the basis of these two studies, the Diallate Working Group concluded that the evidence of oncogenicity from long-term oral administration of diallate to mice and rats supports the issuance of an RPAR.

IV. Other Adverse Effects

This section addresses certain adverse effects which diallate may produce but for which insufficient evidence exists to issue a rebuttable presumption. The Working Group recommends that the Agency solicit comment on the evidence presented below and encourage the submission of additional studies or relevant information on these effects.

A. Neurotoxicity

As provided in 40 CFR 162.11(a)(3)(ii)(B), the production of "any other chronic or delayed toxic effect in test animals at any dosage up to a level, as determined by the Administrator, which is substantially higher than that to which humans can reasonably be anticipated to be exposed, taking into account ample margins of safety" is a basis for a RPAR.

Neurotoxic effects were observed in a recent study in which chickens were administered diallate (16). Ten hens over 9 months old were administered 0.312 g/kg body weight diallate by gavage twice daily for 3 consecutive days. This dosing procedure was repeated for 3 more consecutive days beginning on test day 21. The total cumulative dosage for the 6 days was 3.74 g/kg. The study also included negative and positive control groups of 10 hens. The positive control group received triortho cresyl phosphate (TOCP) at an unreported dosage level and regimen. At the end of the 42-day test period, all surviving hens from the negative control and test groups were sacrificed and subjected to a gross pathological examination. All positive control hens were sacrificed in extremis on day 16. Hematoxylineosin-stained sections of brain, spinal cord and sciatic nerve from all negative control, diallate-treated and 4 of 10 positive control hens were examined microscopically.

Test hens showed moderate to severe clinical signs of neurotoxicity within 48 hours after the beginning of both dosing periods. Ataxia, weakness of wings and legs and inability to stand continued through the 42-day test period but decreased to some extent.

Three of the 10 test hens died during the test (on days 27, 28 and 39) after exhibiting paralysis. A fourth hen was sacrificed in extremis on day 31 after exhibiting paralysis for 6 days. Histologic evaluation of the sacrificed hen revealed mild demyelination of the peripheral sciatic nerve, moderate multifocal axonal degeneration of the spinal cord and mild axonal degeneration of the brain. The only other test hen showing treatment-induced lesions was the one that died on day 27. Minimal to mild axonal degeneration was present in the sciatic nerve of this hen.

Evaluations of this study by EPA (17) and by an EPA contractor (18) concluded that the study provides adequate evidence that diallate produces a neurotoxic effect at the dosage level used but that it does not provide adequate evidence to determine a dose-response relationship.

In the absence of evidence demonstrating a no effect level after repeated administration, it is not possible to determine an adequate margin of safety for the human population (19). The registrant has notified the Agency that he is conducting a study to determine a dose response relationship (20). Should evaluation of this or any other study that comes to our attention provide an adequate basis for an RPAR a supplemental Position Document and Federal Register notice will be issued. In addition the Agency has the option to initiate cancellation proceedings on this basis without prior resort to the RPAR process, pursuant to 40 CFR 162.11(a)(6).

B. Mutagenicity

Regulations in 40 CFR 162.11(a)(3)(ii)(A) require that an RPAR be issued if "mutagenic effects, as determined by multitest evidence" are induced by the pesticide.

Two different types of mutagenic studies have been reported for diallate: A dominant lethal study in mice (21) and a bacterial study (Ames Test) (22).

These studies were evaluated by an EPA contractor who concluded that while mutagenic effects were not induced in either of these studies, additional studies are required to evaluate mutagenic risk (23).

In the guidelines for dominant lethal tests published by the Canadian government, negative results are not considered meaningful "unless derived from tests carried out at different dosage levels with different dosage regimes" (24). Although the available dominant lethal study for diallate concludes that diallate produced no mutagenic effect, it is limited because the investigator used only two dose levels instead of the three-four dose levels recommended as good protocol.

The negative result of the published bacterial study can only be considered tentative since no metabolic activation system was included.

Very recently, a third mutagenicity study (Ames Test) was received in prepublication form (25), but an evaluation could not be done in time for inclusion in this document. It is recognized the many carbamate pesticides produce an arrest in cell division at metaphase (c-mitosis) in plants (26). We solicit information concerning the activity of diallate on plant and animal cell division. Should evaluation of this or any other study that comes to our attention provide adequate basis for an RPAR, a supplemental Position Document and Federal Register notice will be issued. In addition, the Agency has the option to initiate cancellation proceedings on this basis without prior resort to the RPAR process, pursuant to 40 CFR 162.11(a)(6).

C. Reproductive Effects

Effects on reproduction are of concern in view of the effects observed in the 90-day dog study submitted in support of tolerance requests (see section on Regulatory History). This study is currently being reevaluated.

A teratogenic study in albino rabbits was also submitted (27). In evaluating this study, an EPA contractor concluded that diallate was not teratogenic or fetotoxic in rabbits (23).

A three-generation reproduction study in rats is currently in progress. An interim report was submitted by Monsanto with data on the Fo generation only (28). It is not possible to make conclusions from these data.

Evaluation of these studies will be pursued and if these or any other studies provides adequate basis for an RPAR on reproductive effects, a supplemental Position Document and Federal Register notice will be issued. In addition, the Agency has the option to initiate cancellation proceedings on this basis without prior resort to the RPAR process, pursuant to 40 CFR 162.11(a)(6).

V. Recommendation

The Working Group recommends that the Agency solicit comment on the fate and effects of diallate and its impurities on the environment specifically (a) the identity of metabolites and degradation products and their rates of formation in all media, especially water; and (b) their effect upon flora and fauna especially those with a metabolism similar to man.

List of Appendices

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[FR Doc.77-15358 Filed 5-27-77;8:45 am]

[FRL 726-1]

STAGE II VAPOR RECOVERY REGULATIONS

Deferral of Certain Final Compliance Dates

This order defers until further notice the May 1, 1977, date for completion of on-site construction or installation, and the May 31, 1977, date for final compliance for Stage II Vapor Recovery systems for eleven air quality control regions.

Statement of considerations. On November 1, 1976, the Environmental Protection Agency reproposed vapor recovery regulations for certain affected Air Quality Control Regions. Promulgation of the amended regulations is expected in the near future. Installation and compliance dates for Stage II Vapor Recovery will be established at that time.

It is therefore ordered, That the dates for completion of on-site construction or installation and final compliance for Stage II Vapor Recovery in the following regulations are deferred until established by a new publication:

Colorado: 40 CFR 52.337(g)
California: 40 CFR 52.256(g)
District of Columbia: 40 CFR 52.488(g)
Massachusetts: 40 CFR 52.1147(g)
Maryland: 40 CFR 52.1087(g); 52.1102(g)
New Jersey: 40 CFR 52.1699(g)
Texas: 40 CFR 52.2288(h); 52.2289(f)
Virginia: 40 CFR 52.2439(g)

Dated: May 23, 1977.

DOUGLAS M. COSTLE,
Administrator.

[FR Doc.77-15324 Filed 5-27-77;8:45 am]

[FRL 737-7]

STATE-FEDERAL WATER PROGRAMS ADVISORY COMMITTEE

Open 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: State-Federal Water Programs Advisory Committee.
Date: June 21, 1977.
Place: Environmental Protection Agency, 401 M Street SW., Washington, D.C., Room 3906, Waterside Mall.
Time: 9-4:30 p.m. (approximately).

PROPOSED AGENDA

Time	*Topic*
9-4:30 p.m.....	EPA's proposed legislative amendments to Pub. L. 92-500 (as amended). This meeting will include the Construction Grants Program and Water Quality Management (208) Program.

These meetings are open to the public. Any member of the public may file a written statement with the Committee before, during or after the meeting. All communication regarding these meetings should be addressed to: Taylor Adams, Office of Water and Hazardous Materials (WH-556), Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460. Anyone wishing to have their name placed on the mailing list for any Committee reports, meeting announcements, and minutes of all meetings should contact Taylor Adams, either in writing or by telephone 202-755-0405.

Dated: May 24, 1977.

ANDREW W. BREIDENBACH,
Assistant Administrator for Water and Hazardous Materials.

[FR Doc.77-15325 Filed 5-27-77;8:45 am]

[FRL 737-8]

WATER QUALITY MANAGEMENT PLAN FOR THE SOUTHERN KENNEBEC VALLEY

Availability of Draft Environmental Impact Statement

Pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, the Environmental Protection Agency has prepared a draft environmental impact statement (DEIS) on the Proposed 208 Water Quality Management Plan for the Southern Kennebec Valley of Maine.

The proposed project is a joint product of the Southern Kennebec Valley Regional Planning Commission, Augusta, Maine, the Cobbossee Watershed District, Winthrop, Maine, and the EPA Region 1, Boston, Massachusetts. It is part of a two year areawide water quality management planning process funded by EPA as a result of Section 208 of the Federal Water Quality Act Amendments of 1972. The DEIS summarizes the alternative technical control and management alternatives developed towards a composite areawide plan.

The DEIS was transmitted to the Council on Environmental Quality on May 20, 1977. In accordance with CEQ's notice of availability, comments are due on July 11, 1977. Copies of the DEIS are available for review and comment from: Project Officer, Environmental Protection Agency, Region 1, JFK Federal Building, Boston, Massachusetts 02203, telephone 617-223-4635.

Copies of the DEIS are available for public inspection at the following locations:

Environmental Protection Agency, Region 1, Library, JFK Federal Building, Boston, Massachusetts.
Environmental Protection Agency, Public Information Reference Unit, Room 2922, Waterside Mall, 401 M Street, SW, Washington, DC.

Information copies of the DEIS are available at cost (10 cents/page) from the Environmental Law Institute, 1346 Connecticut Avenue, NW, Washington,

DC 20036. Please reference ELR No. 70618.

Copies of the DEIS have been sent to various Federal, State and local agencies, and interested individuals as outlined in the CEQ Guidelines.

Dated: May 24, 1977.

WILLIAM D. DICKERSON,
Acting Director,
Office of Federal Activities.

[FR Doc.77-15362 Filed 5-27-77;8:45 am]

FEDERAL ENERGY ADMINISTRATION

ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT

Availability of Draft Environmental Impact Statement and Notice of Public Hearing Re Georgia Power Co., McManus Generating Station, Powerplants 1 and 2

Pursuant to 102(2)(C) of the National Environmental Policy Act, 42 U.S.C. 4332(2)(C) and 10 CFR Parts 208 and 305, the Federal Energy Administration (FEA) has prepared a draft environmental impact statement concerning the issuance of a Notice of Effectiveness to powerplants number 1 and 2 of McManus Generating Station, owned by the Georgia Power Company and located in Brunswick, Georgia.

The effect of the Notice of Effectiveness would be to make effective a prohibition order issued to the powerplants on June 30, 1975; the order would prohibit the burning of petroleum products or natural gas by the powerplants as their primary energy source. This prohibition would become effective on a date to be stated in the Notice of Effectiveness.

Single copies of the draft environmental impact statement may be obtained from the FEA National Energy Information Center, Room 1404, 12th and Pennsylvania Avenue NW., Washington, D.C. 20461; from FEA Region IV, Public Reading Room, 7th Floor, 1655 Peachtree Street NE., Atlanta, Georgia 30309; and from the Brunswick-Glynn County Regional Library, 208 Gloucester Street, Brunswick, Georgia 31520.

Copies of the draft statement will also be available for public review in the FEA Freedom of Information Reading Room, Room 2107, 12th and Pennsylvania Avenue NW., Washington, D.C., between the hours of 8 a.m. and 4:30 p.m. Monday through Friday, and in FEA Region IV, Public Reading Room 7th floor, 1655 Peachtree Street NE., Atlanta, Georgia 30309.

Interested persons are invited to submit written data, views or arguments with respect to the draft environmental impact statement to Executive Communications, Room 3309, Box MM, Federal Energy Administration, Washington, D.C. 20461.

Comments should be identified on the outside of the envelope and on any documents submitted to FEA Executive Communications with the designation "Draft EIS—McManus Generating Station." Fifteen copies should be submitted. All comments and relevant information should be received by FEA by July 20, 1977, in order to ensure full consideration.

Pursuant to 10 CFR 208.14 a public hearing on the draft environmental impact statement to receive oral presentations from interested persons will be held from 1-4:30 p.m. and 6-9 p.m. on July 7, 1977, in Room 233, Office Park Building, 1803 Gloucester Street, Brunswick, Georgia 31520.

Any person who has an interest in the subject of the hearing, or who is a representative of a group or class of persons which has an interest in the subject of the hearing, may make a written request for an opportunity to make oral presentation. That request must be received before 4:30 p.m. e.d.t., June 24, 1977, and should be delivered to Mr. Warren Zurn, 1655 Peachtree Street NE., Atlanta, Georgia 30309, 404-881-4463. The request may be hand-delivered at the above address between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. The request should be signed by the person making the request; it should describe the person's interest in the issue(s) involved; if appropriate, it should state why the person is an appropriate spokesperson for the group or class of persons which has such an interest; and it should give a concise summary of the proposed oral presentation and a phone number where the person may be contacted through July 6, 1977. Speakers will be contacted by an FEA representative before 5:30 p.m. June 27, 1977, to confirm receipt of the written request. Ten copies of the presentation should then be sent by the speakers to Mr. Warren Zurn, 1655 Peachtree Street NE., Atlanta, Georgia 30309, before 4:30 p.m. e.d.t., July 6, 1977. FEA will accommodate, to the greatest extent possible, those persons wishing to make an oral presentation at the hearing but who do not request an opportunity to do so by June 24, 1977.

The FEA reserves the right to limit the number of spokespersons of a particular group or class of persons to be heard at the hearing, to schedule their respective presentations, to limit their presentations to 30 minutes, and to establish the procedures governing the conduct of the hearing. The FEA will prepare an agenda that shall provide, to the extent practicable, for the presentation of all relevant views by competent spokespersons.

An FEA official will be designated to preside at the hearing. It will not be a judicial or evidentiary type hearing. Questions may be asked only by those conducting the hearing, and there will be no cross-examination of persons presenting statements. Any further procedural rules needed for the proper conduct of the hearing will be announced by the presiding officer.

A transcript of the hearing will be made and it, together with any written comments submitted in the course of the hearing, will be retained by the FEA and made available for inspection and copying at the Freedom of Information Reading Room, Room 2107, 12th and Pennsylvania Avenue NW., Washington, D.C., between the hours of 8 a.m. and 4:30 p.m., Monday through Friday, and FEA Region IV, 1655 Peachtree Street NE., Atlanta, Georgia, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. Anyone may purchase a copy of the transcript from the reporter.

Any information or data considered by the person furnishing it to be confidential must be so identified and submitted in writing, one copy only. The FEA reserves the right to determine the confidential status of the information or data and to treat it according to that determination.

After all testimony and comments, including written data, views, and arguments have been received and reviewed, a final environmental impact statement will be prepared and issued.

Issued in Washington, D.C., May 25, 1977.

ERIC J. FYGI,
Acting General Counsel,
Federal Energy Administration.

[FR Doc.77-15408 Filed 5-30-77;8:45 am]

FEDERAL POWER COMMISSION

[Docket No. RM77-14]

GAS RESEARCH INSTITUTE

Application for Approval of Research and Development Program

AGENCY: Federal Power Commission.

ACTION: Notice of application for approval of Research and Development Program.

SUMMARY: The Commission requests comments and interventions on the application of Gas Research Institute (GRI) which has asked approval for payments made to GRI by jurisdictional companies who are its members for funding of its research and development programs. GRI also asks approval for such jurisdictional companies to file and place in effect research and development rate adjustments through such payments on a final and non-refundable basis.

DATES: Comments, protests and interventions are due on or before June 6, 1977.

ADDRESS: Office of the Secretary, Federal Power Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426.

FOR FURTHER INFORMATION CONTACT:

Kenneth F. Plumb, Secretary (202) 275-4166.

MAY 24, 1977.

Take notice that, on March 22, 1977, Gas Research Institute (GRI), 3424 South State Street, Chicago, Illinois 60616, filed in Docket No. RM77-14 an Application pursuant to sections 4, 8, 15 and 16 of the Natural Gas Act for an or-

der: that payments be made to GRI by jurisdictional companies who are its Members for funding its R&D Programs are reasonable and proper costs of operation; and that such jurisdictional companies may file and place in effect research and development rate adjustments for the purpose of flowing through such payments on a final and non-refundable basis. The Application further prays that the Commission consider the Application on the highest priority basis and issue the requested order within ninety (90) days of the filing of the Application.

Most of the major interstate pipeline companies in the United States have become Members of GRI and it is anticipated that they, as well as other Members of GRI, will become intervening parties in this proceeding in support of such requested order.

Attached to the Application as Exhibit 1 is the First Five-Year R&D Program of GRI. This plan and program proposes research and development (R&D) programs to be conducted by GRI in the next five years. The estimated annual costs of the programs are approximately $30 million in 1977 and increasing to approximately $93 million in 1981. For the 1977 R&D programs, the Application submits to the Commission, for approval, a list of projects which are estimated to cost $9.5 million in the first year of operations of GRI.

The Application requests an order approving payments to GRI by jurisdictional interstate pipeline companies which are Members of GRI. Such payments will be determined by multiplying 1.2 mills ($0.0012) per Mcf times the volumes, as rendered, of the following categories of gas:

(1) Sales for resale to distribution utility customers; (2) Transportation deliveries to distribution utility customers; (3) Sales and transportation deliveries to pipeline companies which are not Members of GRI. The Application also requests approval for jurisdictional company Members of GRI to file R&D cost adjustment provisions in their tariffs and for the funds received under such provisions to be used to make the payments to GRI. It is requested that such R&D cost adjustment provisions take effect without hearing and suspension

Any person desiring to be heard or to make any protest with reference to the said Application should, on or before June 6, 1977, file with the Federal Power Commission, Washington, D.C. 20426, a petition to intervene or a protest in accordance with the requirements of the Commissions' rules of practice and procedure. 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 petition to intervene in accordance with the Commissions' rules. Copies of this filing are on file with the Commission and available for public inspection.

KENNETH F. PLUMB,
Secretary.

[FR Doc.77-15477 Filed 5-27-77;9:37 am]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[Docket No. 77N-0025]

SPECIFICATION, MANUFACTURING, AND USE INFORMATION ON CERTAIN GRAS OR PRIOR-SANCTIONED HUMAN FOOD INGREDIENTS

Request for Data and Information

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: This document requests the submittal of data and information on: (1) the food-grade specifications, (2) manufacturing practices, and (3) extent of food use of certain generally recognized as safe (GRAS) or prior-sanctioned human food ingredients. The GRAS review has shown these three categories of data to be deficient for some GRAS ingredients.

DATE: Available data and information may be submitted until August 1, 1977.

ADDRESSES: Written submissions to the Hearing Clerk (HFC-20), Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT:

Corbin Miles, Bureau of Foods (HFF-335), Food and Drug Administration, Department of Health, Education, and Welfare, 200 C St. SW., Washington, D.C. 20204 (202-472-4750).

SUPPLEMENTARY INFORMATION: The Food and Drug Administration is conducting a comprehensive safety review of direct and indirect human food ingredients that are classified as "generally recognized as safe" (GRAS) or subject to a prior sanction. The Commissioner of Food and Drugs issued several notices and proposed regulations published in the FEDERAL REGISTER of July 26, 1973 (38 FR 20040), initiating this review. The review includes those GRAS ingredients published in Part 182 (21 CFR Part 182, formerly § 121.101, prior to recodification published in the FEDERAL REGISTER of March 15, 1977 (42 FR 14302)), as well as other GRAS substances permitted for use under limited conditions. In accordance with § 170.35 (21 CFR 170.35, formerly § 121.40, prior to recodification published in the FEDERAL REGISTER of March 15, 1977 (42 FR 14302)), affirmation of a substance as GRAS requires, among other things, that (1) the identity of the substance, (2) its method of manufacture, and (3) its extent of use in food be known to the Commissioner. If such information is not available, it may not be possible to affirm a substance as GRAS or to specify the conditions under which it may be used safely in food.

The initial phase of the GRAS review has led to the identification of three categories of data in which some GRAS ingredients are deficient. These categories of data are:

1. *Food-grade specifications.* Essential composition and quality factors including physical and chemical properties, assay, and limits of impurities including arsenic, lead, selenium, and other heavy metals where applicable. Test methods and data resulting from the use of these methods are essential.

2. *Manufacturing procedures.* General descriptions of the physical, chemical and biological processes used to produce the ingredient from the raw materials, excluding trade secrets.

3. *Use data.* (a) Food categories, as defined in § 170.3(n) (21 CFR 170.3(n), formerly § 121.1(n), prior to recodification published in the FEDERAL REGISTER of March 15, 1977 (42 FR 14302)), in which the ingredient is used; (b) technical effects, as defined in § 170.3(o) (21 CFR 170.3(o)), for which the ingredient is used; and (c) usual and maximum levels of use in each food category.

The Commissioner specifically requests that additional data and information necessary to resolve the deficiencies on the following food ingredients and categories of data be submitted:

Ingredients:	*Categories of data needed*[1]
Acrylates (methyl, ethyl)	1, 3
Bentonite and clay	1, 3
Bioflavonoids:	
Hesperidin	1, 2, 3
Rutin	1, 2, 3
Neringin	1, 2, 3
Lemon bioflavonoid complex	1, 2, 3
Orange bioflavonoid complex	1, 2, 3
Lemon-orange flavonate glycoside	1, 2, 3
Bisulfites (K, Na)	2, 3
Borax and boric acid	2, 3
Butter fat (enzyme modified with butyric acid)	1, 2
Calcium hexametaphosphate	1, 2, 3
Calcium phytate	1, 2
Calcium pyrophosphate	3
Cellulose acetate	1, 2, 3
Collagen	1, 2, 3
Cornmint oil (mentha arvensis oil)	1, 3
Corn silk	1, 2
Fish oil (hydrogenated)	1, 2
Formate (Na)	1, 2, 3
Gluconates (Ca, Cu, Mn, Na)	2
Gluconates (K)	3
Hydrosulfites (Na, Zn)	1
Hypophosphites (Ca, K, Mn, Na)	1, 2, 3
Invert sugar (glucose-fructose mixture)	1
Linoleic acid	1, 2, 3
Metabisulfites (K, Na)	2, 3
Methylpolysilicone(s)	1, 2
Milk powder (whole, enzyme modified)	1, 2
Monosodium phosphate derivatives of mono- and diglycerides	1, 2, 3
Nickel	1, 3
Oiticica oil	2, 3
Peanut stearine	1, 2, 3
Pectinates (Na, K, Ca)	3
Pectin(s)	3
Rice bran oil	1, 2, 3

Ingredients:	Categories of data needed [1]
Smoke flavors	1, 2, 3
Sodium phosphoaluminate	1, 2, 3
Sodium sulfite	2, 3
Soybean oil (hydrogenated)	1, 3
Soy protein, isolated	1, 2, 3
Starter distillate	1, 2
Stearyl alcohol	3
Succinic acid	2
Succistearin	1, 3
Sulfoacetate derivatives of mono- and diglycerides	1, 2, 3
Sulfur dioxide	1, 3
d-a-Tocopherol acetate concentrate/preparation	2, 3
Urea	3
Vegetable protein (hydrolyzed)	1, 2
Wax (shellac)	1, 2

[1] 1=Food-grade specifications. 2=Manufacturing methods. 3=Use data (food categories, technical effects, maximum levels).

The data and information requested above may be filed on or before August 1, 1977, with the Hearing Clerk (HFC–20), Food and Drug Administration, Rm. 4–65, 5600 Fishers Lane, Rockville, MD 20857. Data and information received pursuant to this request may be seen in the above office between the hours of 9 a.m. and 4 p.m., Monday through Friday.

Dated: May 25, 1977.

WILLIAM F. RANDOLPH,
Acting Associate Commissioner for Compliance.

[FR Doc.77–15417 Filed 5–27–77;8:45 am]

National Institute of Education

EDUCATION AND WORK GRANTS PROGRAM

Closing Date for Receipt of Applications

Notice is hereby given that pursuant to the authority contained in section 405 of the General Education Provisions Act, as amended, 20 U.S.C. 1221e, applications are being accepted for grants under the Education and Work Grants Program.

Applications must be received by the Proposal Clearinghouse, National Institute of Education, on or before July 7, 1977.

A. *Applications sent by mail.* An application sent by mail should be addressed as follows: Proposal Clearinghouse, Stop 35, National Institute of Education, Washington, D.C. 20208. The envelop should be marked in the lower right hand corner, Education and Work Group, Selected Area: (Occupational Change, and Assessment or Women and Mathematics). An application will be considered to be received on time by the Clearinghouse if:

(1) It is received at the Clearinghouse by 4:30 p.m., July 7, 1977; or

(2) The application was sent by certified mail for which an official Post Office stamp on the original receipt for certified mail has been obtained indicating that the proposal was mailed by 4:30 p.m., July 5, 1977.

B. *Hand delivered applications.* An application to be hand delivered must be brought to Room 708, Reviere Building, 1832 M Street NW., Washington, D.C. Hand delivered applications will be accepted daily between the hours of 9 a.m. and 4:30 p.m. except Saturdays, Sundays and Federal holidays. Hand delivered applications will not be accepted after 4:30 p.m. on the closing date July 7, 1977. A receipt will be issued upon acceptance of the application package.

C. *Program information and forms.* Programs Announcements may be obtained from the Research Staff, Education and Work Group, National Institute of Education, 1200 19th Street NW., Washington, D.C. 20208. Telephone 202–254–5470 or 202–254–5650.

D. *Applicable regulations.* The regulations applicable to this program include the National Institute of Education General Provisions Regulations, 45 CFR Part 1400, published in the FEDERAL REGISTER on November 4, 1974 at 39 FR 38992; regulations for the Education and Work Grants Program, 45 CFR Part 1470, published in the FEDERAL REGISTER on September 28, 1976 at 41 FR 42663 and proposed amendments to the Education and Work Grants Program published in this issue of the FEDERAL REGISTER.

(Catalog of Federal Domestic Assistance Number 13.950, Educational Research and Development.)

Dated: May 3, 1977.

EMERSON J. ELLIOTT,
Acting Director, National Institute of Education.

[FR Doc.77–15374 Filed 5–27–77;8:45 am]

Office of Education

NATIONAL ADVISORY COUNCIL ON BILINGUAL EDUCATION

Meeting

AGENCY: National Advisory Council on Bilingual Education.

ACTION: Notice.

SUMMARY: This notice sets forth the schedule and proposed agenda of a forthcoming meeting of the National Advisory Council on Bilingual Education. Notice of this meeting is required under the Federal Advisory Committee Act (5 U.S.C. Appendix 1, 10(a)(2)). This document is intended to notify the general public of their opportunity to attend.

DATES: June 17, 1977 November 1 Report Committee Meeting 7:30 pm–9 pm; June 18, 1977: Business Meeting 9 am–5 pm; June 19, 1977: Standing Committee Meeting 9 am–12 noon.

ADDRESS: Quality Inn, Capitol Hill, 415 New Jersey Avenue NW., Washington, D.C. 20001.

FOR FURTHER INFORMATION CONTACT:

Dr. John C. Molina, Director, Office of Bilingual Education, Reporters' Bldg., Room 421, Office of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202 (202–245–2600).

The National Advisory Council on Bilingual Education is established under Section 732(a) of the Bilingual Education Act (20 U.S.C. 880b–11) to advise the Secretary of Health, Education, and Welfare and the Commissioner of Education concerning matters arising in the administration of the Bilingual Education Act.

The proposed agenda for the November 1 Report Committee meeting on June 17, 1977 includes: A discussion of the Council members recommendations for inclusion in the annual report.

The proposed agenda for the Council meeting on June 18, 1977 includes:

(1) Program Delegate's Report.

(2) Committee discussion and reports.

(3) Report on the Third Annual November 1 Report to Congress.

(4) Special Reports.

(5) Discussion on Council member recommendation for the annual report.

(6) Discussion Issue Papers.

(7) Future NACBE Activities; and

(8) Regular Council business.

On June 19, 1977, three of the Council's standing committees will meet: Budget—Update Report of FY 1977 expenditures (9 am–10 am); Non-Spanish Minority Languages—review of issue paper relating to "Serving diverse Language groups" (10 am–11 am); and Legislation—preparation of Council's slate of proposed legislative changes (11 am–12 noon).

Records will be kept of all Council proceedings and shall be available for public inspection in Room 421, reporters' Building, 300 7th Street, S.W., Washington, D.C. 20202. In the event that the proposed agenda is completed prior to the projected date or time, the Council will adjourn the meeting.

Signed at Washington, D.C. on May 20, 1977.

JOHN C. MOLINA,
Director, Office of Bilingual Education.

[FR Doc.77–15359 Filed 5–27–77;8:45 am]

Food and Drug Administration

GASTROINTESTINAL DRUGS ADVISORY COMMITTEE

Agenda Change

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The agenda for the June 6 and 7, 1977, meeting of the Gastrointestinal Drugs Advisory Committee has been changed.

FOR FURTHER INFORMATION CONTACT:

Joan C. Standaert, Bureau of Drugs (HFD–110), 5600 Fishers Lane, Rockville, MD 20857, (301–443–4730).

SUPPLEMENTARY INFORMATION: Pursuant to the Federal Advisory Committee Act of October 6, 1972 (Pub. L. 92–463, 86 Stat. 770–776 (5 U.S.C. App. I)), the Food and Drug Administration (FDA) announced in a notice published in the FEDERAL REGISTER of May 13, 1977 (42 FR 24320), meetings of FDA public

advisory committees and other required information in accordance with provisions set forth in section 10(a) (1) and (2) of the act.

Notice is hereby given that the agenda of the Gastrointestinal Drugs Advisory Committee meeting scheduled for June 6 and 7, 1977, has been changed to delete discussion of IND 11,134 (chenodeoxycholic acid) and IND 13,020 (ursodeoxycholic acid) and to add discussion of long-term animal safety studies on Tagamet (NDA 17-920).

Dated: May 25, 1977.

WILLIAM F. RANDOLPH,
Acting Associate Commissioner for Compliance.

[FR Doc.77-15548 Filed 5-27-77;10:45 am]

[Docket No. 77N-0148]

METABOLIC, INC.

Change of Date for Comments on Proposed Revocation

AGENCY: Food and Drug Administration.

ACTION: Notice.

SUMMARY: The Commissioner of Food and Drugs is changing the date from July 12, 1977 to June 13, 1977 for interested persons to submit comments on the proposed revocation of license of Metabolic, Inc., U.S. License No. 415.

DATE: Comments to be submitted by June 13, 1977.

ADDRESS: Written comments to the Hearing Clerk (HFC-20), Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT:

Donna C. Williams or Al Rothschild, Bureau of Biologics (HFB-620), Food and Drug Administration, Department of Health, Education, and Welfare, 8800 Rockville Pike, Bethesda, MD 20014, (301-443-1920).

SUPPLEMENTARY INFORMATION: The Commissioner issued a notice in the FEDERAL REGISTER of May 13, 1977 (42 FR 24328) offering an opportunity for a hearing on his intended revocation of U.S. License No. 415 issued to Metabolic, Inc., 4520 Yoakum Blvd., Houston, TX. Pursuant to 21 CFR 601.6, certain locations operating under the license had been suspended on February 25, 1977, and the remaining locations had been suspended on April 26, 1977. The licensee was given until July 12, 1977 to submit data justifying a hearing and other persons were given the same amount of time to comment on the proposed revocation.

On May 3, 1977, Metabolic, Inc., filed suit in the Federal District Court of the Southern District of Texas, for an injunction to compel the Food and Drug Administration to release the suspension (Civil No. H77CA676). On May 20, the District Court directed that Metabolic pursue its administrative remedy on the ultimate question of revocation as announced in the notice published in the FEDERAL REGISTER of May 13, and he postponed further jurdicial proceedings until July 20, 1977.

To assure that submission of comment by persons other than Metabolic does not delay the administrative proceedings and thereby cause an undue hardship for Metabolic, the Commissioner is shortening the time for comments by such persons; the date is changed from July 12, 1977 to June 13, 1977.

Dated: May 26, 1977.

WILLIAM F. RANDOLPH,
Acting Associate Commissioner for Compliance.

[FR Doc.77-15549 Filed 5-27-77;10:46 am]

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Federal Disaster Assistance Administration

[Docket No. NFD-484]

INTERAGENCY DROUGHT EMERGENCY COORDINATING COMMITTEE

Designation of Additional Emergency Drought Impact Areas

AGENCY: Federal Disaster Assistance Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the designation of additional counties as Emergency Drought Impact Areas by the Interagency Drought Emergency Coordinating Committee of 1977. In addition, additional counties are listed that were inadvertently omitted in the first Notice of April 29, 1977.

DATED: May 13, 1977.

FOR FURTHER INFORMATION CONTACT:

Jack W. McGraw, Director, Preparedness Office, Federal Disaster Assistance Administration, Department of Housing and Urban Development, Washington, D.C. 20410. (202-634-7845).

NOTICE: The Notice of designation of Emergency Drought Impact Areas (42 FR 21855, April 29, 1977), is hereby amended to include the following counties, which were inadvertently omitted from the initial list, among those areas determined to be Emergency Drought Impact Areas:

KANSAS

Entire State designated.

MICHIGAN

Chippewa.

TEXAS

El Paso.

Acting upon the request of the respective Governors, the Interagency Drought Emergency Coordinating Committee designated the following counties as Emergency Drought Impact Areas:

ARIZONA

Entire State designated.

COLORADO

Entire State designated.

IDAHO

Entire State designated.

IOWA

Entire State designated.

NEW MEXICO

Entire State designated.

OREGON

Coos.	Lincoln.
Curry.	Tillamook.

The designation of a county or an entire State as an Emergency Drought Impact Area does not confer entitlement to dought assistance. Individuals and communities must meet the separate eligibility requirements established by each agency before assistance may be provided.

Under the authority granted to me as Secretary to the Committee by the Memorandum of Agreement (42 FR 21855, April 29, 1977), I have provided the list of designated counties for the public record.

THOMAS P. DUNNE,
Administrator, Federal Disaster Assistance Administration.

[FR Doc.77-15302 Filed 5-27-77;8:45 am]

[FDAA-535-DR]

MISSOURI

Major Disaster and Related Determinations

AGENCY: Federal Disaster Assistance Administration.

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the State of Missouri (FDAA-535-DR), dated May 7, 1977, and related determinations.

DATED: May 7, 1977.

FOR FURTHER INFORMATION CONTACT:

Frank J. Muckenhaupt, Chief, Program Support Staff, Federal Disaster Assistance Administration, Department of Housing and Urban Development, Washington, D.C. 20410 (202-634-7825).

NOTICE: Pursuant to the authority vested in the Secretary of Housing and Urban Development by the President under Executive Order 11795 of July 11, 1974, and delegated to me by the Secretary under Department of Housing and Urban Development Delegation of Authority, Docket No. D-74-285; and by virtue of the Act of May 22, 1974, entitled "Disaster Relief Act of 1974" (88 Stat. 143); notice is hereby given that on May 7, 1977, the President declared a major disaster as follows:

I have determined that the damage in certain areas of the State of Missouri resulting from severe storms, tornadoes and flooding beginning about May 4, 1977, is of sufficient severity and magnitude to warrant a major disaster declaration under Public Law 93-288. I therefore declare that such a major disaster exists in the State of Missouri.

Notice is hereby given that pursuant to the authority vested in the Secretary of Housing and Urban Development under Executive Order 11795, and delegated to me by the Secretary under Department of Housing and Urban Development Delegation of Authority, Docket No. D–74–285, I hereby appoint Mr. Francis X. Tobin, FDAA Region VII, to act as the Federal Coordinating Officer for this declared major disaster.

I do hereby determine the following areas to have been adversely affected by this declared major disaster.

The Counties of:

Cass	Lafayette
Clay	Pettis
Jackson	

(Catalog of Federal Domestic Assistance No. 14.701, Disaster Assistance.)

THOMAS P. DUNNE,
Administrator, Federal Disaster Assistance Administration.

[FR Doc. 77–15303 Filed 5–27–77;8:45 am]

[Docket No. NFD–480; FDAA–3039–EM]

OREGON

Amendment to Notice of Emergency Declaration

AGENCY: Federal Disaster Assistance Administration.

ACTION: Notice.

SUMMARY: This Notice amends the Notice of emergency declaration for the State of Oregon (FDAA–3039 EM), dated April 29, 1977.

DATED: May 12, 1977.

FOR FURTHER INFORMATION CONTACT:

Frank J. Muckenhaupt, Chief, Program Support Staff, Federal Disaster Assistance Administration, Department of Housing and Urban Development, Washington, D.C. 20410 (202–634–7825).

NOTICE: The Notice of emergency for the State of Oregon dated April 29, 1977, is hereby amended to include the following counties among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President in his declaration of April 29, 1977.

The Counties of:

Jackson
Josephine

The purpose of this designation is to provide emergency livestock feed assistance and cattle transportation assistance only in the aforementioned affected areas effective the date of this amended Notice.

(Catalog of Federal Domestic Assistance No. 14.701, Disaster Assistance.)

THOMAS P. DUNNE,
Administrator, Federal Disaster Assistance Administration.

[FR Doc.77–15304 Filed 5–27–77;8:45 am]

WASHINGTON

[Docket No. NFD–483; FDAA–3037–EM]

Amendment to Notice of Emergency Declaration

AGENCY: Federal Disaster Assistance Administration.

ACTION: Notice.

SUMMARY: This Notice amends the Notice of emergency declaration for the State of Washington (FDAA–3037–EM), dated March 31, 1977.

DATED: May 6, 1977.

FOR FURTHER INFORMATION CONTACT:

Frank J. Muckenhaupt, Chief, Program Support Staff, Federal Disaster Assistance Administration, Department of Housing and Urban Development, Washington, D.C. 20410 (202–634–7825).

NOTICE: The Notice of emergency for the State of Washington dated March 31, 1977, and amended on April 4, 1977, is hereby further amended to include the following counties among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President in his declaration of March 31, 1977:

The Counties of:

Adams	Grant
Asotin	Lincoln
Douglas	Pend Oreille
Ferry	Stevens
Franklin	Whitman

The purpose of this designation is to provide emergency livestock feed assistance and cattle transportation assistance only in the aforementioned affected areas effective the date of this amended Notice.

(Catalog of Federal Domestic Assistance No. 14.701, Disaster Assistance.)

THOMAS P. DUNNE,
Administrator, Federal Disaster Assistance Administration.

[FR Doc.77–15303 Filed 5–27–77;8:45 am]

[Docket No. NFD–482; FDAA–3037–EM]

WASHINGTON

Amendment to Notice of Emergency Declaration

AGENCY: Federal Disaster Assistance Administration.

ACTION: Notice.

SUMMARY: This Notice amends the Notice of emergency declaration for the State of Washington (FDAA–3037–EM), dated March 31, 1977.

DATED: May 10, 1977.

FOR FURTHER INFORMATION CONTACT:

Frank J. Muckenhaupt, Chief, Program Support Staff, Federal Disaster Assistance Administration, Department of Housing and Urban Development, Washington, D.C. 20410 (202–634–7825).

NOTICE: The Notice of emergency for the State of Washington dated March 31, 1977, and amended on April 4, 1977, and May 6, 1977, is hereby further amended to include the following county among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President on March 31, 1977:

The County of:

Klickitat

The purpose of this designation is to provide emergency livestock feed assistance and cattle transportation assistance only in the aforementioned affected area effective the date of this amended Notice.

(Catalog of Federal Domestic Assistance No. 14.701, Disaster Assistance.)

THOMAS P. DUNNE,
Administrator, Federal Disaster Assistance Administration.

[FR Doc.77–15306 Filed 5–27–77;8:45 am]

Office of the Secretary

[Docket No. N–77–763]

ADVISORY COMMITTEE

Establishment of Advisory Committee and Notice of Meeting

AGENCY: Department of Housing and Urban Development.

ACTION: The Secretary hereby establishes a Task Force on the Future of the FHA (Federal Housing Administration) and this notice announces the time and place for its first meeting.

SUMMARY: The Task Force on the Future of the FHA will review and consider alternative roles for the Federal Housing Administration and make recommendations to the Secretary. The time, place and agenda for the first Task Force meeting are announced.

DATES: The Task Force on the Future of the FHA shall be established effective on the filing of its charter by the Secretary of Housing and Urban Development with the Senate Committee on Banking, Housing and Urban Affairs, and the House Committee on Banking, Finance and Urban Affairs, these being the standing committees of the Congress having legislative jurisdiction over the Department of Housing and Urban Development.

The Task Force will continue in existence for six months from the date of its establishment.

The first meeting of the Task Force will be held on June 15, 1977, at 9 o'clock in the morning.

ADDRESS: Committee Management Officer Douglas C. Brooks, Room 3260, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, D.C. 20410.

FOR FURTHER INFORMATION CONTACT:

Douglas C. Brooks (202) 755–9086 or Donald K. McLain (202) 755–5333.

SUPPLEMENTARY INFORMATION: Pursuant to the Federal Advisory Com-

mittee Act (P.L. 92-463) it is hereby determined that the establishment of the Task Force on the Future of the FHA is necessary, appropriate, and in the public interest in connection with the performance of the duties imposed upon the Secretary of Housing and Urban Development.

The purpose of the Task Force shall be to review and consider alternative roles for the Federal Housing Administration and recommend for the consideration of the Secretary a Departmental position to assist the Secretary in her testimony before the Senate Committee on Banking, Housing, and Urban Affairs, and perform such other functions as may be appropriate.

The membership of the Task Force on the Future of the FHA shall not exceed thirty (30) persons serving without compensation. The plan for balanced membership representing a diversity of viewpoints anticipates representation of consumer interests, organized labor, minority groups and women, private mortgage insurers, savings and loan associations, mortgage bankers, commercial and savings banks, state, county and municipal officers, the academic world, the legal profession, homebuilders and developers, and HUD related Federal employees. Broad geographical representation will be provided.

The first meeting will be held in Room 10233, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, D.C., at the time stated above.

The agenda for the first meeting of the Task Force shall include the following:

a. The timetable for delivering recommendations to the Secretary.

b. Review of and outline of alternative roles proposed for the FHA.

c. In-depth analysis of as many of the alternative roles as time permits.

d. General discussion of such other matters as may be appropriate, and the agenda for the next scheduled meeting.

The meeting of the Task Force will be open to the public.

Issued at Washington, D.C. May 24, 1977.

PATRICIA ROBERTS HARRIS,
Secretary, Department of Housing and Urban Development.

[FR Doc.77-15292 Filed 5-26-77;8:45 am]

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

COLD SPRINGS RANCHERIA, CALIF.

Revocation of Plan for the Distribution of Assets and of Continuance of Federal Trust Relationship

This notice is published in the exercise of authority delegated by the Secretary of the Interior to the Commissioner of Indian Affairs by 230 DM 2.

Notice is hereby given that at the request of all persons who were determined to hold rights, claims or interests in the Cold Springs Rancheria, Fresno County, California, under a Plan for the Distribution of Assets drafted pursuant to the Act of August 18, 1958 (72 Stat. 619), and accepted September 16, 1960, and on April 11, 1970, the general membership of the Sycamore Valley Association of the Cold Springs Rancheria adopted a resolution rescinding its approval for the removal of Federal supervision over the affairs and property of the rancheria, said Plan for Distribution of Assets of the Cold Springs Rancheria is hereby revoked.

All individuals affected by the revocation of the Plan for Distribution of Assets are eligible for all services performed by the Federal Government for Indians because of their status as Indians and are subject to all statutes which affect Indians because of their status as Indians. Those individuals include the following persons and the dependent members of their immediate families:

Sallie Hunter, P.O. Box 64, Tollhouse, Calif. 93667.
Lutie Shortie, Sadie Shortie, P.O. Box 53, Clovis, Calif. 93612.
Ed Hunter, P.O. Box 78, Tollhouse, Calif. 93667.
Jim George, General Delivery, Tollhouse, Calif. 93667.
Mary Hunter, Deceased.
Henry Buckskin, Deceased.
Annie George, General Delivery, Tollhouse, Calif. 93667.
Evelyn Buckskin Perez, a.k.a. Aleva Perez, 1365-302 LaSalle, Minneapolis, Minn. 98104.
Lena Tom Strombeck, P.O. Box 109, Tollhouse, Calif 93667.
Jim Edd, P.O. Box 66, Tollhouse, Calif. 93667.
Emma Lewis, General Delivery, Tollhouse, Calif. 93667.
Lillian Lee, P.O. Box 14, Tollhouse, Calif. 93667.
Georgia George, Deceased.

RAYMOND V. BUTLER,
Acting Deputy Commissioner of Indian Affairs.

[FR Doc.77-15332 Filed 5-27-77;8:45 am]

Fish and Wildlife Service

ENDANGERED SPECIES PERMIT

Receipt of Request for Amendment

On July 27, 1976, an application dated July 21, 1976, was received from the St. Louis Zoological Park requesting authorization to purchase 1 male and 1 female cheetah (*Acinonyx jubatus*) from Lion Country Safari Inc., Laguna Hills, California. The application was published in the FEDERAL REGISTER (Vol. 41 No. 205) Thursday, October 21, 1976.

Permit PRT 2-307 was issued on February 16, 1977. Two cheetahs arrived at the St. Louis Zoo on March 17, 1977; unfortunately, both were males.

The St. Louis Zoological Park hereby requests an amendment to their permit PRT 2-307 allowing the purchase of 1 female cheetah from the same source. Published herewith is a copy of the request for these changes which will be considered an amendment to this permit. This request is being considered pursuant to § 13.23, Title 50 Code of Federal Regulations (see 39 FR 1162).

MR. DONALD G. DONAHOO,
Chief, Wildlife Permit Office, U.S. Fish & Wildlife Service, Washington, D.C.

DEAR MR. DONAHOO: Under the conditions of permit PRT-2-307 we received 2 cheetahs from Laguna Hills, California which should have been (1) male and (1) female Cheetah *Acinonyx jubatus*.

Close examination by our curators and veterinarians has confirmed that these are both males. Therefore, some amendment must be made to our permit. Lion Country still has a female and we could ask them to exchange. We are, however, attempting to gather a group of young captive born cheetahs for propagating purposes so we may apply for additional permit for this additional specimen.

Is it possible to get our permit PRT-2-307 amended to 2 males and 1 female to cover this additional female at Laguna Hills? If not, please amend our permit to cover the 2 males and we will apply for an additional permit.

Sincerely yours,
CHARLES H. HOESSLE,
General Curator, Deputy Director.

In keeping with the spirit of the Endangered Species Act of 1973 this notice is being published to allow public comment on the request for an amendment. Interested persons may comment on this amendment by submitting written data, views, or arguments, preferably in triplicate, to the Director (FWS/WP), U.S. Fish and Wildlife Service, Washington, D.C. 20240. This application has been assigned File Number PRT 2-207-07. Please refer to this number when submitting comments. All relevant comments received on or before June 30, 1977 will be considered.

Dated: May 25, 1977.

DONALD G. DONAHOO,
Chief, Permit Branch, Federal Wildlife Permit Office.

[FR Doc.77-15343 Filed 5-27-77;8:45 am]

ENDANGERED SPECIES PERMIT

Receipt of Application

Notice is hereby given that the following application for a permit is deemed to have been received under section 10 of the Endangered Species Act of 1973 (Pub. L. 93-205).

Applicant: Wisconsin Department of Natural Resources, State Office Building, Room 108, 3550 Mormon Coulee Road, La Crosse, Wisconsin 54601.

OMB NO. 42-R1436

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

FEDERAL FISH AND WILDLIFE LICENSE/PERMIT APPLICATION

1. APPLICATION FOR (Indicate only one)
☐ IMPORT OR EXPORT LICENSE ☒ PERMIT

2. BRIEF DESCRIPTION OF ACTIVITY FOR WHICH REQUESTED LICENSE OR PERMIT IS NEEDED:
A federally funded mussel survey is to be conducted by the Wisconsin DNR. The objectives are to locate and determine species composition of mussel beds as well as monitor commercial clam fishermen. Endangered mollusk species are anticipated to be collected during the survey.

3. APPLICANT: (Name, complete address and phone number of individual, business, agency, or institution for which permit is requested)
Wisconsin Department of Natural Resources
State Office Building, Room 108
3550 Mormon Coulee Road
La Crosse, WI 54601 (608) 788-2534

4. IF "APPLICANT" IS AN INDIVIDUAL, COMPLETE THE FOLLOWING:
☐ MR. ☐ MRS. ☐ MISS ☐ MS. | HEIGHT | WEIGHT
DATE OF BIRTH | COLOR HAIR | COLOR EYES
PHONE NUMBER WHERE EMPLOYED | SOCIAL SECURITY NUMBER
OCCUPATION

5. IF "APPLICANT" IS A BUSINESS, CORPORATION, PUBLIC AGENCY, OR INSTITUTION, COMPLETE THE FOLLOWING:
EXPLAIN TYPE OR KIND OF BUSINESS, AGENCY, OR INSTITUTION

ANY BUSINESS, AGENCY, OR INSTITUTIONAL AFFILIATION HAVING TO DO WITH THE WILDLIFE TO BE COVERED BY THIS LICENSE/PERMIT

NAME, TITLE, AND PHONE NUMBER OF PRESIDENT, PRINCIPAL OFFICER, DIRECTOR, ETC. (608) 266-2121
Anthony Earl, Secretary, Madison, WI
IF "APPLICANT" IS A CORPORATION, INDICATE STATE IN WHICH INCORPORATED

6. LOCATION WHERE PROPOSED ACTIVITY IS TO BE CONDUCTED:
Pools 3-11
Mississippi River

7. DO YOU HOLD ANY CURRENTLY VALID FEDERAL FISH AND WILDLIFE LICENSE OR PERMIT ☐ YES ☒ NO
(If yes, list license or permit number)

8. IF REQUIRED BY ANY STATE OR FOREIGN GOVERNMENT, DO YOU HAVE THEIR APPROVAL TO CONDUCT THE ACTIVITY YOU PROPOSE? ☐ YES ☐ NO
(If yes, list jurisdiction and type of document)
N/A

9. CERTIFIED CHECK OR MONEY ORDER (if applicable) PAYABLE TO THE U.S. FISH AND WILDLIFE SERVICE ENCLOSED IN AMOUNT OF
$

10. DESIRED EFFECTIVE DATE: May 1, 1977

11. DURATION NEEDED: Two years

12. ATTACHMENTS: THE SPECIFIC INFORMATION REQUIRED FOR THE TYPE OF LICENSE/PERMIT REQUESTED (See 50 C.F.R. 13.12(b)) MUST BE ATTACHED. IT CONSTITUTES AN INTEGRAL PART OF THIS APPLICATION. LIST SECTIONS OF 50 CFR UNDER WHICH ATTACHMENTS ARE PROVIDED:
17.32

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ AND AM FAMILIAR WITH THE REGULATIONS CONTAINED IN TITLE 50, PART 13, OF THE CODE OF FEDERAL REGULATIONS AND THE OTHER APPLICABLE PARTS IN SUBCHAPTER B OF CHAPTER I OF TITLE 50, AND I FURTHER CERTIFY THAT THE INFORMATION SUBMITTED IN THIS APPLICATION FOR A LICENSE/PERMIT IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT ANY FALSE STATEMENT HEREIN MAY SUBJECT ME TO THE CRIMINAL PENALTIES OF 18 U.S.C. 1001.

SIGNATURE (Do not print): Willis B Fendley
DATE: 11 April 77

3-200
(5-74)

Item 12—Attachments 50 CRF 17.32(a).

1. We desire a permit for the collection of the following endangered mussels: Higgins' Eye pearly mussel, *Lampsilis higginsi;* Pink Mucket pearly mussel, *Lampsilis orbiculata;* Fat Pocketbook pearly mussel, *Potamilus capax;* and any other endangered mussel species added to the current list. The use of a crowfoot bar for sampling is not selective as to sex but will restrict collection to the larger (older) specimens. The proposed study by the Wisconsin Department of Natural Resources is designed to document the location and species abundance of existing mussel beds. As few as possible of the endangered mollusks will be taken in order to document their presence in each area where found.

2. The animals proposed for collection are currently in the wild.

3. The confirmation of the identity of endangered mollusks must be performed by a recognized authority, thus requiring their death and removal from the environment.

4. N/A.

5. Wisconsin Department of Natural Resources, La Crosse Area Office, State Office Building, La Crosse, Wisconsin 54601.

Any educational or governmental institution associated with the study of mussels from the upper Mississippi River.

6. N/A.

7. The mussel survey to be conducted by the Wisconsin Department of Natural Resources is funded by the Commercial Fish Act, Project 3-276-R. A copy of the contract is enclosed. Principal investigators of the study are James Holzer, Mississippi River Biologist, Tim Larson, Mississippi River Biologist, and Terry Larsen, Project Biologist. The period of study is to be February 1, 1977 to January 30, 1979.

8. (i) To comply with the requirements of the proposed Wisconsin mussel survey, a permit is necessary to collect endangered species for identification.

(ii) The field survey to be conducted will involve the use of a crowfoot bar to locate and sample mussel beds. Pools 3-8 of the Mississippi River will be sampled during the

period of this study. The primary sampling period will be during the warm water months, May through September.

(iii) Information obtained will be coordinated with an on going study by the U.S. Army Corps of Engineers in Pools 7–10 and the St. Croix River. Knowledge gained will provide for protection of the endangered mollusks. Data collected will also aid the State of Wisconsin in evaluating the status of mussel beds in that portion of its Mississippi River boundary waters.

(iv) Any specimen identified by an expert as an endangered species will be kept for reference at the Area Headquarters, Wisconsin Department of Natural Resources, La Crosse, Wisconsin, or donated to any agency or university to which the specimen may be useful.

Documents and other information submitted in connection with this application are available for public inspection during normal business hours at the Service's office in Room 512, 1717 H Street NW., Washington, D.C.

Interested persons may comment on this application by submitting written data, views, or arguments, preferably in triplicate, to the Director (FWS/WPO), U.S. Fish and Wildlife Service, Washington, D.C. 20240. This application has been assigned File Number PRT 2–721–07. Please refer to this number when submitting comments. All relevant comments received on or before June 30, 1977 will be considered.

Dated: May 25, 1977.

DONALD G. DONAHOU,
Chief, Permit Branch, Federal Wildlife Permit Office, U.S. Fish and Wildlife Service.

[FR Doc.77-15344 Filed 5-27-77;8:45 am]

ENDANGERED SPECIES PERMIT

Notice of Receipt of Application

Notice is hereby given that the following application for a permit is deemed to have been received under section 10 of the Endangered Species Act of 1973 (Pub. L. 93–205).

Applicant: Charles Sivelle, 41 Westcliff Drive, Dix Hills, New York 11746.

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE
FEDERAL FISH AND WILDLIFE LICENSE/PERMIT APPLICATION

1. APPLICATION FOR (Indicate only one)
[X] IMPORT OR EXPORT LICENSE [ ] PERMIT

2. BRIEF DESCRIPTION OF ACTIVITY FOR WHICH REQUESTED LICENSE OR PERMIT IS NEEDED: to export in the course of a commercial activity 2 pr. of each of the following: Mikado, Swinhoe, Edwards, Humes, Elliots and Brown-eared pheasants and shipment of 6 eggs of each, of the above.

3. APPLICANT. (Name, complete address and phone number of individual, company, agency, or institution for which permit is requested)
Charles Sivella
41 Westcliff Drive
Dix Hills, N.Y. 11746
516-423-6146

4. IF "APPLICANT" IS AN INDIVIDUAL, COMPLETE THE FOLLOWING:

[X] MR. [ ] MRS. [ ] MS.	HEIGHT 5'11"	WEIGHT 190 lbs
DATE OF BIRTH 9-24-18	COLOR HAIR Brown	COLOR EYES Blue
PHONE NUMBER WHERE EMPLOYED 516-423-6146	SOCIAL SECURITY NUMBER 125-07-0277	
OCCUPATION Manufacturer		

5. IF "APPLICANT" IS A BUSINESS, CORPORATION, PUBLIC AGENCY, OR INSTITUTION, COMPLETE THE FOLLOWING:
EXPLAIN TYPE OR KIND OF BUSINESS, AGENCY, OR INSTITUTION
Not applicable

ANY BUSINESS, AGENCY, OR INSTITUTIONAL AFFILIATION HAVING TO DO WITH THE WILDLIFE TO BE COVERED BY THIS LICENSE/PERMIT
None

NAME, TITLE, AND PHONE NUMBER OF PRESIDENT, PRINCIPAL OFFICER, DIRECTOR, ETC.
Not applicable

IF "APPLICANT" IS A CORPORATION, INDICATE STATE IN WHICH INCORPORATED
Not applicable

6. LOCATION WHERE PROPOSED ACTIVITY IS TO BE CONDUCTED
Export from New York City to Montevideo, Uruguay

7. DO YOU HOLD ANY CURRENTLY VALID FEDERAL FISH AND WILDLIFE LICENSE OR PERMIT? [X] YES [ ] NO
If yes, list license or permit number:
PRT 8 306-C, 5-PR-1084
ES-68

8. IF REQUIRED BY ANY STATE OR FOREIGN GOVERNMENT, DO YOU HAVE THEIR APPROVAL TO CONDUCT THE ACTIVITY YOU PROPOSE? [X] YES [ ] NO
If yes, list jurisdictions and type of documents:
Necessary Import Permit to be supplied by Importer

9. CERTIFIED CHECK OR MONEY ORDER (if applicable) PAYABLE TO THE U.S. FISH AND WILDLIFE SERVICE ENCLOSED IN AMOUNT OF
$ No fee required

10. DESIRED EFFECTIVE DATE: At Once

11. DURATION NEEDED: 6 months

12. ATTACHMENTS. THE SPECIFIC INFORMATION REQUIRED FOR THE TYPE OF LICENSE/PERMIT REQUESTED (see 50 CFR [illegible]) MUST BE ATTACHED, IT CONSTITUTES AN INTEGRAL PART OF THIS APPLICATION. LIST SECTIONS OF 50 CFR UNDER WHICH ATTACHMENTS ARE PROVIDED.
Attachment

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ AND AM FAMILIAR WITH THE REGULATIONS CONTAINED IN TITLE 50, PART 13, OF THE CODE OF FEDERAL REGULATIONS AND THE OTHER APPLICABLE PARTS IN SUBCHAPTER B OF CHAPTER I OF TITLE 50, AND I FURTHER CERTIFY THAT THE INFORMATION SUBMITTED IN THIS APPLICATION FOR A LICENSE/PERMIT IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT ANY FALSE STATEMENT HEREIN MAY SUBJECT ME TO THE CRIMINAL PENALTIES OF 18 U.S.C. 1001.

SIGNATURE (In ink) Charles Sivella DATE April 4, 1977

APRIL 4, 1977.

Director (FWS),
U.S. Fish and Wildlife Service, P.O. Box 19183, Washington, D.C. 20036.

DEAR SIR: The undersigned hereby applies for an Endangered Species Permit under Section 10(a) of the Endangered Species Act of 1973. The following information is submitted pursuant to paragraph 17.22 of Volume 40, No. 188 of the FEDERAL REGISTER.

Request is made for a permit to export two pairs of Mikado, Swinhoe, Edwards, Humes, Elliots and Brown-eared pheasants and 6 eggs of each of the above listed pheasants. The specimens referred to were captive propagated in the aviaries of the undersigned at 41 Westcliff Drive, Dix Hills, N.Y. 11746 during 1976.

Mr. Fassano is a noted game bird breeder within his country having propagated many rare species of waterfowl, quail and partridge. His intention is now to propagate the above mentioned endangered species of pheasants. He also requests shipment of 6 eggs of each of the above named species. He has prepared aviaries with shelter of approximately 1500 cubic feet and outside runs of approximately 3000 cubic feet. The enclosures are landscaped and his management techniques have proven successful in the past with game birds including other pheasants.

He hopes to establish a captive self-sustaining flock of these species in his country and distribute progeny among other breeders therein. At present there aren't any of these species available in Uruguay.

The recipient will participate in a cooperative breeding program which is one of the conditions of the sale and will contribute data to any Studbrook when required. Mr. Fassano is versed in the care of wildlife and is knowledgeable of avian diseases, their treatment and prevention.

Birds will be shipped in crates similar and equal to International Air Transport Association taken from Live Animal Regulations, 5th Edition, Feb. 7, 1975, containing litter on bottom, containers for feed and water and a padded top for the protection of the birds.

Proper import permits including any permit that applies to the Convention on International Trade in Endangered Species will be provided by Mr. Fassano.

Sincerely yours,

CHARLES SIVELLE.

Documents and other information submitted in connection with this application are available for public inspection during normal business hours at the Service's office in Room 512, 1717 H Street NW., Washington, D.C.

Interested persons may comment on this application by submitting written data, views, or arguments, preferably in triplicate, to the Director (FWS/WPO), U.S. Fish and Wildlife Service, Washington, D.C. 20240. This application has been assigned File Number PRT 2-741-C07. Please refer to this number when submitting comments. All relevant comments received on or before June 30, 1977 will be considered.

Dated: May 25, 1977.

DONALD G. DONAHOO,
Chief, Permit Branch, Federal Wildlife Permit Office, U.S. Fish and Wildlife Service.

[FR Doc.77-15345 Filed 5-27-77;8:45 am]

ENDANGERED SPECIES PERMIT

Receipt of Application

Notice is hereby given that the following application for a permit is deemed to have been received under section 10 of the Endangered Species Act of 1973 (Pub. L. 93-205).

Applicant: Oklahoma City Zoo, Rt. 1, Box 1, Oklahoma City, Oklahoma 73111. Lawrence Curtis, Director.

OMB NO. 42-R1870

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

FEDERAL FISH AND WILDLIFE LICENSE/PERMIT APPLICATION

1. APPLICATION FOR (Indicate only one)
☐ IMPORT OR EXPORT LICENSE ☒ PERMIT

2. BRIEF DESCRIPTION OF ACTIVITY FOR WHICH REQUESTED LICENSE OR PERMIT IS NEEDED:
Import one male and two female Malayan tapir (Tapirus indicus).

3. APPLICANT: (Name, complete address and phone number of individual, business, agency, or institution for which permit is requested)
Oklahoma City Zoo
Rt. 1, Box 1
Oklahoma City, OK
405/424-3344

4. IF "APPLICANT" IS AN INDIVIDUAL, COMPLETE THE FOLLOWING:
☐ MR. ☐ MRS. ☐ MISS ☐ MS.
HEIGHT: WEIGHT:
DATE OF BIRTH: COLOR HAIR: COLOR EYES:
PHONE NUMBER WHERE EMPLOYED: SOCIAL SECURITY NUMBER:
OCCUPATION:

5. IF "APPLICANT" IS A BUSINESS, CORPORATION, PUBLIC AGENCY, OR INSTITUTION, COMPLETE THE FOLLOWING:
EXPLAIN TYPE OR KIND OF BUSINESS, AGENCY, OR INSTITUTION:
Zoological, educational or, scientific propagation

ANY BUSINESS, AGENCY, OR INSTITUTIONAL AFFILIATION HAVING TO DO WITH THE WILDLIFE TO BE COVERED BY THIS LICENSE/PERMIT:
n/a

NAME, TITLE, AND PHONE NUMBER OF PRESIDENT, PRINCIPAL OFFICER, DIRECTOR, ETC.: *405/424-3344*
Lawrence Curtis, Director

IF "APPLICANT" IS A CORPORATION, INDICATE STATE IN WHICH INCORPORATED:

6. LOCATION WHERE PROPOSED ACTIVITY IS TO BE CONDUCTED:
1/1 currently available in Denmark (1/0 Aalburg Zoo; 0/1 in Copenhagen Zoo); 0/1 tentatively available in Holland (Amsterdam Zoo or Rotterdam Zoo).

7. DO YOU HOLD ANY CURRENTLY VALID FEDERAL FISH AND WILDLIFE LICENSE OR PERMIT? ☐ YES ☐ NO
(If yes, list license or permit number(s))
'73EZ2

8. IF REQUIRED BY ANY STATE OR FOREIGN GOVERNMENT, DO YOU HAVE THEIR APPROVAL TO CONDUCT THE ACTIVITY YOU PROPOSE? ☐ YES ☐ NO
(If yes, list jurisdictions and type of document(s))
valid export permit will be in hand prior to shipment.

9. CERTIFIED CHECK OR MONEY ORDER (if applicable) PAYABLE TO THE U.S. FISH AND WILDLIFE SERVICE ENCLOSED IN AMOUNT OF:
$ *Not required*

10. DESIRED EFFECTIVE DATE:
1 April 77

11. DURATION NEEDED:
six months

12. ATTACHMENTS. THE SPECIFIC INFORMATION REQUIRED FOR THE TYPE OF LICENSE/PERMIT REQUESTED (See 50 CFR 13.12(b)) MUST BE ATTACHED. IT CONSTITUTES AN INTEGRAL PART OF THIS APPLICATION. LIST SECTIONS OF 50 CFR UNDER WHICH ATTACHMENTS ARE PROVIDED.

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ AND AM FAMILIAR WITH THE REGULATIONS CONTAINED IN TITLE 50, PART 13, OF THE CODE OF FEDERAL REGULATIONS AND THE OTHER APPLICABLE PARTS IN SUBCHAPTER B OF CHAPTER I OF TITLE 50, AND I FURTHER CERTIFY THAT THE INFORMATION SUBMITTED IN THIS APPLICATION FOR A LICENSE/PERMIT IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT ANY FALSE STATEMENT HEREIN MAY SUBJECT ME TO THE CRIMINAL PENALTIES OF 18 U.S.C. 1001.

SIGNATURE (In ink): *Lawrence Curtis*
DATE: *11 May 1977*

3-200
10/76

APRIL 1, 1977.

DIRECTOR,
Fish & Wildlife Service, United States Department of Interior
Washington, D.C.

DEAR SIR: Please consider this our application to import an endangered species of animal within the context of the Endangered and Threatened Wildlife and Plants, Part 17, Subpart C, Article 17.22 for the enhancement of propagation.

(a)(1) Purchase and importation of one male and two female Malayan tapir (*Tapirus indicus*).

(2) (iii) The Oklahoma City Zoo is currently pursuing acquisition of one male and two female captive born Malayan tapir from two foreign Zoos breeding the species. We request permission to import one male and two female captive born Malayan tapir. These tapir are legally exportable from their country of birth and/or holding.

(3) See (2) (iii).

(4) The Oklahoma City Zoo has located and been offered one male and one female captive born Malayan tapir. The male offered was born in the Aalborg Zoo, Denmark, in September of 1976 and is currently exhibited there. The Copenhagen Zoo, Denmark, currently has two breeding females. Copenhagen Zoo has given us a purchase option on a young female Malayan tapir born at their Zoo approximately 6 months ago. This animal is currently located at Copenhagen Zoo.

Additionally, Copenhagen Zoo has given Oklahoma City Zoo a first option on their next born surplus female.

Amsterdam Zoo has two breeding females with no current surplus of young. Amsterdam Zoo, in north Holland, has offered Oklahoma City Zoo the next option on future surplus from their collection.

Hopefully, if permit is granted, the endangered species herein applied for would come from the above described stock. If this proves impossible, we would pursue other sources and avenues to obtain *captive born* stock.

(5) Oklahoma City Zoo, Route 1, Box 1, Oklahoma City, OK 73111.

(6) (i) See attachment number one.

(ii) Our original male and female Brazilian tapir (*Tapirus terrestris*) were received on 15 October 64 and 30 June 65, respectively. This pair produced the following four offspring in the facility on Attachment One: female-born 22 October 69, female-born 30 May 71, male-born 20 Nov. 72, and male-born 6 August 74. The former three animals went to other institutions as part of their breeding program and the latter animal died at the Oklahoma City Zoo (see Attachment 2). All four offspring were successfully mother-reared in our current tapir facility.

In the past, the Oklahoma City Zoo staff has hand-reared many offspring due to a variety of reasons. Our staff has successfully hand-reared most species of great and several species of lesser cats; developed a technique to hand rear kangaroos and wallabies; was the first to successfully hand-rear the Golden lion marmoset (*Leontophithecus rosalia*); and is currently hand-rearing a Pileated gibbon (*Hylobates lar pileatus*) and Colobus monkey (*Colobus guereza*); when necessary we routinely hand-rear offspring born to one of the largest and most diverse collections of ungulates in captivity in the world. With our nursery staff's expertise, we are confident we can hand-rear a Malayan tapir should the situation arise.

(iii) The Oklahoma City Zoo is willing to participate in a cooperative breeding program and to maintain or contribute to a studbook for the wildlife covered by this permit.

(iv) These animals will be placed in crates meeting or exceeding current IATA regulations and shipped by the most appropriate airline from the point of origin to the Oklahoma City Zoo. Complete feeding and watering instructions are to be attached to shipping crates.

(v) See Attachment 2. In addition, the Oklahoma City Zoo's animal care program consists of an animal hospital with adequate medical, surgical and holding facilities staffed by a full-time veterinarian and a registered medical technologist. We have two backup veterinarians with two and six years of exotic animal experience, respectively. The animal care unit is part of the Hospital and Isolation area which is staffed by two full-time animal technicians. Twenty-five area clinicians are members of our Animal Health Council (AHC). The AHC meets monthly and works with our full-time veterinarian on exceptional health related problems.

(7) See (2)(iii) and (4). Copies of the contract(s) from the institution(s) or individual(s) and an export permit from the country of origin, as well as documentation of the information required in (4), will be forwarded to the U.S.D.I. upon their receipt by the Oklahoma City Zoo.

(8) The Oklahoma City Zoo currently has a facility designed specifically for exhibiting and breeding Tapirus species. This facility has functioned in the successful exhibit, breeding, and rearing of the Brazilian tapir as evidenced by the four births and subsequent mother-rearing of all tapir born. Based on the availability of a facility designed for tapir species, and the desperate need to propagate the species in captivity, we feel justified in obtaining a permit to acquire one male and two female captive born Malayan tapir.

(i) See USDI form 3-200 (item 2) attached.

(ii) See (6) (vi).

(iii) Acquisition of one male and two female captive born Malayan tapir will increase the reproductive potential of the captive population by establishing a breeding nucleus and will provide additional offspring for future captive populations, thus reducing the demand on wild populations.

(iv) In the event of the death of the animals in question, the carcasses will be preserved as scientific specimens and made available to institutions of higher learning for post mortem study.

Sincerely,

LAWRENCE CURTIS,
Director.

ATTACHMENT NUMBER 2 (PAGE ONE)
CFR 17.22(6)(v)

(6)(v) Five year history of mortality in the Malayan tapir (*Tapirus indicus*) and the Brazilian tapir (*Tapirus terrestris*) at the Oklahoma City Zoo.

OKC Zoo ID No.	Sex	Date of death	Cause of death	Corrective measures taken
Malayan Tapir				
5754-01	M	Nov. 23, 1976	*Bacterial septicemia*	See below.[1]
Brazilian tapir				
0243-02	F	Nov. 4, 1974	Intussusception of intestines	Not available.
3987-06	M	Aug. 13, 1975	Drowned	See below.[2]
0342-01	M	Aug. 15, 1976	Euthanized	Do.[3]

[1] The primary cause of death has been determined to be the result of a bacterial speticemia involving a *Beta hemolytic streptococcus* infection, a common cause of strep throat in humans. Other common enteric organisms cultured upon post mortem were *Klebsiella sp.* and *E. coli*, the latter of which is known to evidence several pathogenic strains. It has been standard practice not to allow personnel to work with this animal when they had a sore throat or symptoms of influenza. A review of the health records of the personnel within a reasonable time prior to the death of this animal shows no one with the above health problems having worked with the animal. Laboratory tests and post mortem results are available upon request.

[2] Euthanized due to irreparable damage to feet (post mortem available upon request).

[3] Our animal staff found the juvenile male drowned in the outdoor pool (post mortem available upon requwst).

Documents and other information submitted in connectoin with this application are available for public inspection during normal business hours at the Service's office in Room 512, 1717 H Street, N.W., Washington, D.C.

Interested persons may comment on this application by submitting written data, views, or arguments, preferably in triplicate, to the Director (FWS/WPO), U.S. Fish and Wildlife Service, Washington, D.C. 20240. This application has been assigned File Number PRT 2-736-C07; please refer to this number when submitting comments. All relevant comments received within 30 days of the date of publication will be considered.

Dated: May 25, 1977.

DONALD G. DONAHOO,
Chief, Permit Branch, Federal Wildlife Permit Office, United States Fish and Wildlife Service.

[FR Doc.77-15346 Filed 5-27-77;8:45 am]

ENDANGERED SPECIES PERMIT

Notice of Receipt of Application

Notice is hereby given that the following application for a permit is deemed to have been received under section 10 of the Endangered Species Act of 1973 (Pub. L. 93-205).

Applicant: Lincoln Park Zoological Gardens, 2200 N. Cannon Drive, Chicago, Illinois 60614.

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

FEDERAL FISH AND WILDLIFE
LICENSE/PERMIT APPLICATION

1. APPLICATION FOR (Indicate only one)
[ ] IMPORT OR EXPORT LICENSE [X] PERMIT

2. BRIEF DESCRIPTION OF ACTIVITY FOR WHICH THE ABOVE LICENSE OR PERMIT IS NEEDED.
Import eight Oerstedt's Squirrel monkeys thru Miami, Florida for exhibition and breeding at the Lincoln Park Zoological Gardens Chicago, Illinois from the Panama Canal Zone.

3. APPLICANT. (Name, complete address and phone number of individual, business, agency, or institution for which permit is requested)
Lincoln Park Zoological Gardens
2200 N. Cannon Drive
Chicago, Illinois 60614 USA
Telephone: 312-294-4660 Day
312-294-4668 Night

4. IF "APPLICANT" IS AN INDIVIDUAL, COMPLETE THE FOLLOWING.
[ ] MR. [ ] MRS. [ ] MISS [ ] MS.
HEIGHT: WEIGHT:
DATE OF BIRTH: COLOR HAIR: COLOR EYES:
PHONE NUMBER WHERE EMPLOYED: SOCIAL SECURITY NUMBER:
OCCUPATION:

5. IF "APPLICANT" IS A BUSINESS, CORPORATION, PUBLIC AGENCY, OR INSTITUTION, COMPLETE THE FOLLOWING:
EXPLAIN TYPE OR KIND OF BUSINESS, AGENCY, OR INSTITUTION
Municipal Zoological Gardens
Open to the public daily as a free facility. Concerned with Education, Conservation and Scientific Studies.

ANY BUSINESS, AGENCY, OR INSTITUTIONAL AFFILIATION HAVING TO DO WITH THE WILDLIFE TO BE COVERED BY THIS LICENSE/PERMIT
DNA

NAME, TITLE, AND PHONE NUMBER OF PRESIDENT, PRINCIPAL OFFICER, DIRECTOR, ETC.
Dr. Lester E. Fisher, DVM Dir.

IF "APPLICANT" IS A CORPORATION, INDICATE STATE IN WHICH INCORPORATED

6. LOCATION WHERE PROPOSED ACTIVITY IS TO BE CONDUCTED
Lincoln Park Zoological Gardens
2200- N. Cannon Drive
Chicago, Illinois 60614 USA

7. DO YOU HOLD ANY CURRENTLY VALID FEDERAL FISH AND WILDLIFE LICENSE OR PERMIT? [X] YES [ ] NO
(If yes, list license or permit number(s))
PRT-6-3-I-75Z; ES - 76;PRT8-271-C etc.

8. IF REQUIRED BY ANY STATE OR FOREIGN GOVERNMENT, DO YOU HAVE THEIR APPROVAL TO CONDUCT THE ACTIVITY YOU PROPOSE? [ ] YES [ ] NO
(If yes, list jurisdictions and type of document(s))

9. CERTIFIED CHECK OR MONEY ORDER (if applicable) PAYABLE TO THE U.S. FISH AND WILDLIFE SERVICE ENCLOSED IN AMOUNT OF
$ DNA

10. DESIRED EFFECTIVE DATE
ASAP

11. DURATION NEEDED
Until terminated

12. ATTACHMENTS. THE SPECIFIC INFORMATION REQUIRED FOR THIS TYPE OF LICENSE/PERMIT REQUESTED (See 50 CFR 13.12(b)) MUST BE ATTACHED, IT CONSTITUTES AN INTEGRAL PART OF THIS APPLICATION. LIST SECTIONS OF 50 CFR UNDER WHICH ATTACHMENTS ARE PROVIDED.
Attached letter to the Director USDI and enclosures A-L.

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ AND AM FAMILIAR WITH THE REGULATIONS CONTAINED IN TITLE 50, PART 13, OF THE CODE OF FEDERAL REGULATIONS AND THE OTHER APPLICABLE PARTS IN SUBCHAPTER B OF CHAPTER I OF TITLE 50, AND FURTHER CERTIFY THAT THE INFORMATION SUBMITTED IN THIS APPLICATION FOR A LICENSE/PERMIT IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT ANY FALSE STATEMENT HEREIN MAY SUBJECT ME TO THE CRIMINAL PENALTIES OF 18 U.S.C. 1001.

SIGNATURE (In ink) Dennis A. Meritt Jr. Assistant Director
DATE 30 March 1977

DIRECTOR, *U.S. Department of the Interior, Fish and Wildlife Service, Office of Endangered Species, Permit Division, Washington, D.C.*

MARCH 30, 1977.

DEAR SIR: The Lincoln Park Zoological Gardens formally requests an Endangered Species Permit to import four male and four female Central American or Oerstedt's Squirrel monkeys, *Saimiri sciureus oerstedti* (=*Saimiri cerstedti*) from the Panama Canal Zone.

These eight (8) primates are young adults. From information in hand seven appear to be in their second year of life while one animal, a male, is somewhat older. Authorization is requested to import to the United States from the Panama Canal Zone these mammals for exhibition and breeding studies.

At this time the animals have been removed from the wild. They are not captive born. These eight primates were rescued from the mercado publico in Panama City where they were to be offered for sale as pet animals. Please see attached letter marked enclosure A from Dr. N. B. Gale for details.

Beginning in 1974, Lincoln Park Zoological Gardens attempted to obtain and cooperate with the two zoological facilities known to have this primate. The San Diego Zoological Society, California and the Natura Artis Magistra, Amsterdam, Netherlands both currently hold this mammal. Artis has been successful in breeding and rearing them. San Diego has thus far not produced any young. This may be directly related to the small numbers at that facility. Please see attached letters marked enclosures B and C for further details.

Additionally, we have published in the Newslettter of the American Association of Zoological Parks and Aquariums a notice of our interest and need for this primate. This professional publication reaches several hundred zoological facilities in the United States and abroad. No responses were generated from these notices. See attached copy marked enclosure D.

These eight Oerstedt's Squirrel monkeys were born in the wild in the Republic of Panama in the region near David, Panama Republic. They were removed from the wild and brought by truck to Panama City where they were to be offered for sale as pets. It is not uncommon for such mammals to be offered for sale as pets in the mercado publico. I have in the recent past seen several mammal types offered for sale there. These included Geoffroy Tamarins, *Saguinus goeffroyi*, Ocelot, *Felis pardalis*, Kinkajou, *Potos flavus*, Variegated Squirrel, *Sciurus variegatoides*, Racoon, *Procyon lotor*, Margay, *Felis Wiedi*, Coati, *Nasua nasua*, Owl Monkey, *Aotus trivirgatus*, Howler money, *Alouatta villosa* and Grisson, *Galictis allamandi*. Additionally, several types of psittacine birds are frequently offered for sale.

These Oerstedt's Squirrel monkeys will be displayed and maintained at the Lincoln Park Zoological Gardens, 2200 N. Cannon Drive, Chicago, Illinois 60614. Contact telephone numbers are A/C 312-294-4660, 294-4665, 294-4667. Previous permit applications have detailed and documented the structure and organization of this facility.

These primates will be initially quarantined at our Zoo Animal Hospital as required by the United States Public Health Service, Department of Health, Education and Welfare. After this 31 day period and screening for tuberculosis and parasites, they will be moved to a permanent display in our Primate House. Please see attached item marked E, diagramming the enclosure and item F showing the building location with respect to the zoo grounds.

The person with overall responsibility for the operation of the Lincoln Park Zoological Gardens is Dr. Lester E. Fisher, D.V.M., Director. He has been associated with the facility for over 30 years. The person directly responsible for the mammal collection and record keeping is Mr. Mark A. Rosenthal, Curator of Mammals. The full-time resident Veterinarian is Dr. Erich Maschgan, D.V.M., who has been associated with this facility for over 15 years. Mr. Dennis A. Meritt, Jr., Assistant Director, has been with the zoological gardens for over 10 years and was the former Mammal Curator.

Both Mr. Rosenthal and Mr. Meritt have worked with a variety of Central and South American primates. These have included among others, Squirrel monkeys, *Saimiri sciureus*, various Tamarins including several species of *Saguinus*, various Marmosets including several species and subspecies of *Callithrix* as well as Titi monkeys, *Callicebus mollach ssp.* In addition, Mr. Meritt has conducted detailed observational and behavioral studies on the Owl monkey, *Aotus trivergatus*. This work began in 1968 and continues through the present. Similar studies have been undertaken with *Callicebus sp.*

It is of interest to note that all of the aforementioned genera have bred and successfully reared offspring at our facility. Of note are the second generation births among *Aotus* and *Callithrix sp.* Please see attached item marked G detailing the mammal breedings during 1976 at the Lincoln Park Zoological Gardens. Attached items marked H are resumes for the appropriate staff people.

Although no studbook currently exists for Oerstedt's Squirrel monkey, *Saimiri s. oerstedi*, Lincoln Park Zoological Gardens would be willing to cooperate with and contribute to such a program. Should such a studbook be deeemed necessary by appropriate professionals, this facility would be willing to maintain such a studbook. We have previously maintained the studbook for Snow Leopards, *Uncia uncia*, and contribute to all studbooks requesting data relevant to our collection.

Shipping containers for these primates will be of special design and construction. They will be mosquito proof as the Panama Canal

Zone is periodically considered a possible Yellow Fever zone, although it has not been for several years. They will have built-in provisions for food and water so that no servicing will be required en route. Only canned primate diet will be included to fulfill USDA port of entry requirements for foreign plant and fruit material. The monkeys will be acclimated to this diet during their acclimation period. The shipping containers will be provided with suitable perches/shelves to insure the comfort of the primates. The shipping containers will be waterproof to insure no spillage of elimination products. The shipping containers will conform to the specifications as established by IATA, as a minimum.

Routing of this shipment by air from Panama, Canal Zone is non-stop to Miami, Florida. From Miami, Florida to Chicago, Illinois is also non-stop. In the event of difficulty or lay-over there are qualified zoological personnel in Miami and the Miami area willing to service these primates on behalf of the Lincoln Park Zoological Gardens.

Mortality data for the previous five years for the related primate *Saimiri sciureus* are attached as enclosure I. The causes of mortality are included and self-explanatory in all cases.

Copies of all correspondence that specify our agreement with the supplier and our contract agreement are attached as enclosures A and J. These are dated and signed identifying each person involved in the negotiations/activities.

Permission and authorization is requested to purchase from the supplier in the Panama Canal Zone eight Oerstedt's Squirrel monkeys; to transport these by air to Chicago, Illinois, U.S.A. via Miami, Florida, U.S.A. by commercial airlines; to quarantine these in the Lincoln Park Zoological Gardens Animal Hospital as prescribed by the USPHS/HEW licensed primate quarantine facilities regulations (see attached enclosure K—Lincoln Park's License) and to place these in a suitable exhibit for breeding purposes and behavioral study. These various activities have been explained above and in enclosures.

The rescue of these primates from the Panama Canal Zone is sound zoological management. Their probable destinations were as pets, in all likelihood as lone animals, not pairs or an intact group. They were obtained by a qualified, skilled tropical biologist with veterinary medical expertise. They have been introduced to captive diets and acclimated to conditions of captivity without injury or mortality. Additionally, they have had daily observation and care and have been prophylactically treated for intestinal parasites, a known problem in these primates. The group is compatible, eating well and in apparent good health. These animals represent the nucleus of a potential breeding group of known age and condition as well as locale. There is an opportunity to establish a captive breeding group of this primate species (subspecies) with these examples.

A thorough literature search has been carried out in an effort to obtain information about this primate. Knowledgeable biologists were contacted for additional detailed information. Personal interviews and discussions in the country of origin were conducted in 1974, 1976 and 1977 by the writer, pertaining to this primate type. This data has been tabulated and organized. It is included as attachment L.

These primates, if importation is authorized, would be maintained indefinitely at the Lincoln Park Zoological Gardens. Should the breeding efforts be productive and surplus animals become available, qualified facilities would be contacted in an effort to distribute and establish further captive groups.

If, due to unseen circumstances, the animals are not maintained at the Lincoln Park Zoological Gardens indefinitely, the animals would be placed with another institution qualified to care for and breed this primate. This subject to approval and authorization by appropriate agencies should this be required.

A summation of attachment enclosed (L) shows that this primate's status in the Republic of Panama is precarious. Land use and habitat destruction continues at an accelerated rate threatening primate habitat. This primate has been used as an animal model during malaria investigations and has probable use in cutaneous leishmaniasis studies. No reserves, national parks or preserves have been established or appear to be forthcoming to insure survival of this primate in its country of origin. Insecticide spraying in recent years for malaria and yellow fever appears to have adversely affected this primate. It has been stated that if the present economic rate of development continues and no protection is afforded the wildlife, several species will become endangered, including *Saimiri oerstedti*. This may already be the case for several mammalian species in the Republic of Panama.

The importation of these eight primates would aid in the understanding of the behavior, reproduction and physiology of this species (subspecies). Proven management techniques are available. The nutritional needs of this primate have been established and will be used as guidelines. Knowledge gained in the maintenance and breeding of *Saimiri sciureus* (Colombian) over the course of several years will be invaluable in establishing *oerstedti*. The animals in question were salvaged, rescued mamals destined for local consumption in the pet trade. They have already been removed from the wild and are acclimated to conditions of captivity. It is sound zoological thinking to further study and observe this primate under the previously described surroundings. Members of the Lincoln Park Zoological Society's Docent Behavioral Group will conduct detailed observations to try and determine food preferences, activity cycle, respiratory rate and social interactions. Graduate students in biology and anthropology currently utilize the zoological gardens as a resource for observational studies. An attempt will be made to locate a student to work with this species in a similar manner. Results from these studies will be distributed to interested individuals and agencies. These observations coupled with field efforts already reported will give a clearer insight into the life style and habits of this primate.

The ultimate goal with mammals of this type is the attainment of captive self-sustaining status. This has been possible with *Saimiri sciureus* and there is every reason to believe that this is also possible with this related form *Saimiri sciureus oerstedti* (=*S.* oerstedti). The acquisition of these primates is essential to this goal.

If additional information or details are required, please contact the undersigned directly.

I hereby certify that I have read and am familiar with the regulations contained in Title 50, Part 13 of the Code of Federal Regulations and the other applicable parts in Subchapter B of Charter I of Title 50, and I further certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 USC 1001.

Dated this 30th day of March, 1977 at Chicago, Illinois, U.S.A.

Sincerely yours,

DENNIS A. MERITT, Jr.,
Assistant Director,
Lincoln Park Zoological Gardens.

Documents and other information submitted in connection with this application are available for public inspection during normal business hours at the Service's office in Room 512, 1717 H Street, N.W., Washington, D.C.

Interested persons may comment on this application by submitting written data, views, or arguments, preferably in triplicate, to the Director, (FWS/WPO), U.S. Fish and Wildlife Service, Washington, D.C. 20240. This application has been assigned File Number PRT 2-760-C07; please refer to this number when submitting comments. All relevant comments received on or before June 30, 1977 will be considered.

Dated: May 25, 1977.

DONALD G. DONAHOO,
Chief, Permit Branch, Federal Wildlife Permit Office, U.S. Fish and Wildlife Service.

[FR Doc.77-15347 Filed 5-27-77;8:45 am]

Geological Survey

KNOWN RECOVERABLE COAL RESOURCE AREA

Grass Creek, Wyo.; Revision

Pursuant to authority contained in the Act of March 3, 1879 (43 U.S.C. 31), as supplemented by Reorganization Plan No. 3 of 1950 (43 U.S.C. 1451, note), 203 Departmental Manual 1, Secretary's Order No. 2948, and section 8A of the Mineral Leasing Act of February 25, 1920, as added by section 7 of the Federal Coal Leasing Amendments Act of 1975 (Pub. L. 94-377, August 4, 1976), Federal lands within the State of Wyoming have been classified as subject to the coal leasing provisions of the Mineral Leasing Act of February 25, 1920, as amended (30 U.S.C. 201). The name of the area, effective date, and total acreage involved are as follows:

(50) Wyoming

Revised Grass Creek (Wyoming) Known Recoverable Coal Resource Area; July 26, 1976; 1,360 acres previously defined, and 160 acres added. Total area now classified is 1,520 acres.

A diagram showing the revised boundary and acreage has been filed with the appropriate and office of the Bureau of Land Management. Copies of the diagram and the land description may be obtained from the Conservation Manager, Central Region, U.S. Geological Survey, Stop 609, Box 25046, Federal Center, Denver, Colorado 80225.

Dated: May 23, 1977.

W. A. RADLINSKI,
Acting Director.

[FR Doc.77-15333 Filed 5-27-77;8:45 am]

National Park Service

NATIONAL REGISTER OF HISTORIC PLACES

Notification of Pending Nominations

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before May 31, 1977. Pursuant to § 60.13(a) of 36 CFR Part 60, published in final form on January 9, 1976, written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded to the Keeper of the National Register, National Park Service, U.S. Department of the Interior, Washington, D.C. 20240. Written comments or a request for additional time to prepare comments should be submitted by June 10, 1977.

JERRY L. ROGERS,
Chief, Office of Archeology and Historic Preservation.

ARIZONA

Santa Cruz County

Nogales, *Santa Cruz County Courthouse*, Court St. and Morley.

COLORADO

Moffat County

Maybell vicinity, *Two-Bar Ranch*, 50 mi. W of Maybell off CO 418.

GUAM

Agana, *Guam Institute*, off Route 1.

IOWA

Dickinson County

Orleans vicinity, *Templar Park*, NE of Orleans on IA 276.

Polk County

Des Moines, *Herndon Hall*, 2000 Grand Ave.

Scott County

Davenport, *Beiderbecke, Leon Bismarck (Bix), House*, 1934 Grand Ave.

KANSAS

Cowley County

Arkansas City vicinity, *Arkansas City County Club Site*, E of Arkansas City.

Stafford County

Stafford vicinity, *Comanche Archeological Site*, 16 mi. NE of Stafford.

MAINE

Cumberland County

Freeport, *Freeport Main Street Historic District*, Main St.

Lincoln County

Newcastle vicinity, *Sheepscot Historic District*, W of Newcastle.

York County

Kittery, *Portsmouth Naval Shipyard*, Seavey Island.

MISSISSIPPI

Attala County

Kosciusko, *Brown, David L., House*, 200 E. Washington St.

Warren County

Vicksburg, *Biedenharn Candy Company Building*, 1107–1109 Washington St.

NEVADA

Lyon County

Yerington vicinity, *East Walker River Petroglyph Site*, S of Yerington.

NEW HAMPSHIRE

Sullivan County

Cornish Flat, *First Baptist Church of Cornish*, Meriden State Rd. and NH 120.

NEW JERSEY

Burlington County

Jacobstown vicinity, *Arneytown Historic District*, N of Jacobstown (also in Monmouth Co.).

Essex County

Newark, *James Street Commons Historic District*, roughly bounded by Broad, Orange, Halsey, Warren, Bleeker, and Boyden Sts.

Hunterdon County

Clinton vicinity, *Turner–Cheic–Carhart Farm*, NW of Clinton on Syckles Corner Rd.

Middlesex County

New Brunswick, *Wood Lawn*, Clifton Ave.

NEW MEXICO

Bernalillo County

Albuquerque, *Southwestern Brewery and Ice Co.*, 601 Commercial, NE.

NORTH DAKOTA

Billings County

Medora, *Billings County Courthouse*, 4th St. and 4th Ave.

Medora, *St. Mary's Catholic Church*, 4th St. and 3rd Ave.

Medora, *Von Hoffman House*, Broadway and 5th St.

Burleigh County

Bismarck, *Bismarck Public Library*, 519 E. Thayer Ave.

Bismarck, *Fire Hall*, 517 E. Thayer Ave.

Bismarck, *Ward Earth Lodge Village Site*, Eastern Edge Pioneer Park.

Bismarck vicinity, *Double Ditch Earth Lodge Village Site*, 14 mi. NW of Bismarck on ND 1804.

Mercer County

Hazen, *Hazen High School*, 400 Central Ave.

Riverdale vicinity, *High Butte Effigy and Village Site*, S of Riverdale.

Traill County

Buxton, *First State Bank of Buxton*, 423 Broadway St.

Ward County

Minot, *Soo Line Passenger Depot*, 11 N. Main St.

OREGON

Klamath County

Chemult vicinity, *Gupguaksi*, SE of Chemult.

PENNSYLVANIA

Allegheny County

Glenshaw, *Lightner, Isaac, House*, 2407 Mt. Royal Blvd.

Pittsburgh, *East Liberty Market*, Centre Ave. and Baum Blvd.

Pittsburgh, *Moreland–Hoffstot House*, 5057 5th Ave.

Pittsburgh, *Way, Nicholas, House*, 108 Beaver Rd.

Berks County

Reading, *Philadelphia & Reading Railroad Depot and Swinging Bridge*, 6th and Oley St.

Lackawanna County

Scranton, *Delaware, Lackawanna & Western Railroad Station*, Lackawanna and Jefferson Aves.

Lebanon County

Annville, *Biever House*, 49 S. White Oak St.

Perry County

Newport vicinity, *Little Buffalo Historic District*, SW of Newport off PA 34.

Philadelphia County

Philadelphia, *College Hall*, University of Pennsylvania campus.

SOUTH CAROLINA

Berkeley County

Cordesville vicinity, *Taveau Church*, S of Cordesville on SR 44.

Moncks Corner vicinity, *Biggin Church Ruins*, 2 mi. NE of Moncks Corner on SC 402.

Charleston County

Charleston, *Aiken, Gov. William, House*, 48 Elizabeth St.

Dorchester County

St. George vicinity, *Appleby's Methodist Church*, SW of St. George at jct. of SRs 19 and 71.

Spartanburg County

Spartanburg vicinity, *Walker Hall*, SE of Spartanburg on SC 56.

WASHINGTON

Kittitas County

Roslyn, *Roslyn Historic District*, WA 2E.

WISCONSIN

Portage County

Stevens Point, *Kuhl, Christina, House*, 1416 Main St.

Sauk County

Baraboo vicinity, *Man Mound*, E of Baraboo off WI 33.

[FR Doc.77-15027 Filed 5-27-77;8:45 am]

National Park Service

[Order No. 2]

SUPERINTENDENTS, ET AL., NORTH ATLANTIC REGION

Delegation of Authority

Section 1. *Superintendents.* The National Park Service Superintendents of the North Atlantic Region, in the administration, operation and development of the areas under their supervision, are authorized to exercise all of the authority now or hereafter delegated to the Regional Director, North Atlantic Region, by the Director, National Park Service, except with respect to the following:

(a) Approval of Master Plans.

(b) Acceptance of an offer in settlement of a timber trespass unless (1) the trespass is an innocent one, (2) the damages therefrom do not exceed $5,000, and (3) payment of the full amount of the damages is offered.

(c) Sales of timber pursuant to the Federal Property and Administrative Services Act of 1949, and the Federal

Property Management Regulations when the fair market value of the timber involved in any single transaction exceeds $1,000.

(d) Approval of programs for destruction and disposition of wild animals which are damaging the land of its vegetative cover, and of permits to collect rare or endangered species.

(e) Acceptance of donations of personal property valued in excess of $10,000, and acceptance of donations of money in excess of $10,000.

(f) Authority to designate areas at which recreation fees will be charged as specified by the Land and Water Conservation Fund Act of 1965 (78 Stat. 987), as amended.

(g) Authority to select from the fees established by 43 CFR, Part 18 (38 FR 3385), as amended, the specific fees to be charged at the designated areas in accordance with the Land and Water Conservation Fund Act of 1965 (78 Stat. 987), as amended.

(h) Authority to execute, approve, and administer contracts and to issue purchase orders for equipment, supplies, and services, as follows:

(1) Superintendents, Grade GS-12 and below—in excess of $10,000.

(2) Superintendents, Grade GS-13—in excess of $50,000.

(3) Superintendents, GS-14—in excess of $100,000.

(4) Superintendents, GS-15—in excess of $200,000.

The limitations in this paragraph (h) apply only to open market or nonmandatory sources of supply. Each office may continue to issue orders to GSA Centers and sources under established Federal Supply Schedule of Contracts in amounts exceeding $2,000. The authority limitations in paragraph (h), (2), (3), and (4) above include construction services.

(i) Authority with respect to the preservation of historical and archeological data (including relics and specimens) which might otherwise be lost as a result of the construction of a dam.

(j) Authority to approve land acquisition priorities.

(k) Authority to execute the land acquisition program, including contracting for acquisition of lands and related property and options and offers to sell related thereto.

(l) Authority to issue revocable special use permits having a term of more than 10 years.

(m) Authority to hire, rent, or purchase personal property from employees.

(n) Authority to conduct archeological investigations and salvage activities.

SEC. 2. *Delegation.* (a-1) *Associate Regional Director, Administration.* The Associate Regional Director, Administration, is authorized to exercise all the procurement and contracting authority now or hereafter vested in the Regional Director, North Atlantic Region, except authority to contract for acquisition of land and related property and options and offers to sell related thereto.

(a-2) *The Associate Regional Director, Administration,* is authorized to approve the use of a government-owned or leased motor vehicle between domicile and place of employment for any office or area under the administration of the North Atlantic Region.

(b) *Regional Chief, Division of Contracting and Property Management.* The Regional Chief, Division of Contracting and Property Management is authorized to execute, approve and administer contracts, and to issue purchase orders for equipment, supplies and services, including construction, not in excess of $200,000. This authority may be exercised by the Chief, Contracting and Property Management in behalf of any office or area under the administration of the North Atlantic Region.

(c) *Regional Contract Specialist.* The Regional Contract Specialist may execute, approve, and administer contracts, including construction, not in excess of $50,000. This authority may be exercised by the Regional Contract Specialist in behalf of any office or area under the administration of the North Atlantic Region.

(d) *Regional General Supply Specialist.* The Regional General Supply Specialist may execute, approve, and administer contracts and purchase orders for equipment, supplies, and services not in excess of $50,000. This authority may be exercised by the Regional General Supply Specialist in behalf of any office or area under the administration of the North Atlantic Region.

(e) *Regional Supply Technician.* The Regional Supply Technician may execute and approve purchase orders for equipment, supplies and services not in excess of $10,000. This authority may be exercised by the Regional Supply Technician in behalf of any office or area under the administration of the North Atlantic Region.

(f) *Regional Purchasing Agent.* The Regional Purchasing Agent may execute and approve purchase orders for equipment, supplies and services not in excess of $1,000.

This authority may be exercised by the Regional Purchasing Agent in behalf of any office or areas under the administration of the North Atlantic Region.

(g) *Regional Land Acquisition Officer.* The Regional Land Acquisition Officer is authorized to execute the land acquisition program, including contracting for acquisition of lands and related properties, and acceptance of offers to sell to, or exchange with the United States, lands or interests in lands, and to execute all necessary agreements and conveyances incidental thereto; to accept deeds giving to the United States lands or interests in lands; to approve on behalf of the National Park Service offers of settlement in condemnation cases, and to approve claims for reimbursement under Public Law 91-646.

SEC. 3. *Redelegation.* The authority delegated in this Order No. 2 may not be redelegated, except that a Superintendent may, in writing, redelegate to any officer or employee the authority delegated to him by this order and may authorize written redelagation of such authority. Each redelegation shall be published in the FEDERAL REGISTER.

SEC. 4. *Revocation.* This order revokes North Atlantic Region Order No. 1 (39 FR 3695), published January 29, 1974.

(National Park Service Order No. 77 (38 FR 7478, as amended).)

Dated: January 31, 1977.

JACK E. STARK,
Regional Director.

[FR Doc.77-15330 Filed 5-27-77;8:45 am]

Office of the Secretary

GARY E. ADAMS

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) No change.
(3) No change.
(4) No change.

This statement is made as of May 1, 1977.

Dated: April 25, 1977.

GARY E. ADAMS.

[FR Doc.77-15334 Filed 5-27-77;8:45 am]

EDWARD C. GLASS

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) No change.
(3) No change.
(4) No change.

This statement is made as of May 23, 1977.

Dated: April 25, 1977.

EDWARD C. GLASS.

[FR Doc.77-15335 Filed 5-27-77;8:45 am]

DONALD B. GREGG

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) No change.
(3) No change.
(4) No change.

This statement is made as of May 5, 1977.

Dated: April 25, 1977.

DONALD B. GREGG.

[FR Doc.77-15336 Filed 5-27-77;8:45 am]

HERBERT H. HUNT

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change in last 6 months.
(2) Bought—Aetna Life and Cas., 17 Shares, Gould, 20 shares, Chemex Corp., 500 shares, Vipont Mining, 2,000 shares, KRM, 100 shares, Vipont Chemical, 100 shares.
(3) No change.
(4) No change.

This statement is made as of March 3, 1977.

Dated: May 11, 1977.

HERBERT H. HUNT.

[FR Doc.77-15337 Filed 5-27-77;8:45 am]

EVAN W. JAMES

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) Officer—Dolores Bench Resources, Ltd., Subsidiary of Wisconsin Public Service Corp.
(2) Sold common stock of W. A. Krueger Co. Purchased additional shares of: Peavey Co., Potomac Electric Power Co., Texaco Inc.
(3) No change.
(4) No change.

This statement is made as of May 23, 1977.

Dated: April 29, 1977.

EVAN W. JAMES.

[FR Doc.77-15338 Filed 5-27-77;8:45 am]

MARTIN T. QUIGLEY

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) Jointly own 100 shares of Potomac Electric Power Company common stock.
(3) No change.
(4) No change.

This statement is made as of Mny 1, 1977.

Dated: May 1, 1977.

MARTIN T. QUIGLEY.

[FR Doc.77-15339 Filed 5-27-77;8:45 am]

NICHOLAS A. RICCI

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) Add: First Trust Insured Municipal Bonds—Ser. 14, Amerada Hess PFD Conv., IBM, Nuveen Municipal Bond Fund Inc., Cardiac Pacemakers, Eastman Kodak, Colgate Palmolive.

This statement is made as of May 2, 1977.

Dated: May 2, 1977.

NICHOLAS A. RICCI.

[FR Doc.77-15340 Filed 5-27-77;8:45 am]

JOHN ROLFING

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests during the past six months:

(1) No change.
(2) No change.
(3) No change.
(4) No change.

This statement is made as of May 20, 1977.

Dated: April 25, 1977.

JOHN ROLFING.

[FR Doc.77-15341 Filed 5-27-77;8:45 am]

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337-TA-23]

CERTAIN COLOR TELEVISION RECEIVING SETS

Commission Memorandum Opinion [1]

PROCEDURAL BACKGROUND

On November 5, 1976, the presiding officer in this investigation issued an Order and Recommended Ruling To Deny the Motion of Tokyo Shibaura Electric Co., Ltd., and Toshiba America, Inc., for Summary Determination and Termination of Investigation (motion No. 23-30). This recommended ruling of the presiding officer is one of three to deny various motions for summary determination and termination of this investigation (see the recommended ruling of November 19, 1976, to deny motions Nos. 23-35 and 23-40 and the recommended ruling of December 2, 1976, to deny motions Nos. 23-43 and 23-45).

On November 22, 1976, respondents Tokyo Shibaura and Toshiba filed exceptions and alternative findings of fact and conclusions of law to the presiding officer's order and recommended ruling of November 5, 1976. On December 20, 1976, the Commission issued a Notice of Suspension of Investigation (41 FR 55947, Dec. 23, 1976) suspending this investigation during the pendency of investigation No. TA-201-19 (Television Receivers). This investigation resumed at the opening of business on March 23, 1977 (see Notice of Commission Action, 42 FR 21117, Apr. 25, 1977), on March 24, 1977, a letter was received from counsel for Tokyo Shibaura and Toshiba requesting prompt consideration of motion No. 23-30. This letter, which was addressed to the Chairman, was docketed by the Office of the Secretary as motion No. 23-75. On March 30, 1977, counsel for complainants filed a letter in response to motion No. 23-75.

ORDER

Motion No. 23-30 is hereby remanded to the presiding officer for a final ruling.

OPINION

Section 210.24 of the Commission's Rules of Practice and Procedure provides, in pertinent part, as follows:

> When the presiding officer is not the Commission, any motion within his authority shall be ruled upon by him, and any motion upon which the presiding officer has no authority to rule shall be certified by him to the Commission with his recommendation, and the Commission shall then rule on the motion.

Section 210.50 provides that the presiding officer has the authority to (1) refuse the motion for summary determination or order its continuance (§ 210.50(d)), (2) grant the motion in part (§ 210.50(e)), or (3) grant the motion in full by issuing an order of summary determination (§ 210.50(f)). The Commission is of the view that a motion for summary determination is a motion within the authority of the presiding officer pursuant to § 210.24 and is, therefore, not properly before the Commission.

To the extent that motion No. 23-30 requests relief under section 210.51, the Commission is of the view that the same procedures are prescribed. (See § 210.51(c)). The presiding officer has followed such a procedure in the past under this rule. (See the ruling of the presiding officer of July 12, 1976, denying motions Nos. 23-2A and 23-3A). A consistent procedure for disposing of motions under section 210.51 is essential in the proper administration of 19 U.S.C. 1337.

It is expected that the presiding officer will rule on motions Nos. 23-35, 23-40, 23-43, and 23-45 in a manner consistent with this order. In light of the instant ruling, motion No. 23-75 is denied as moot.

By order of the Commission.

Issued: May 24, 1977.

KENNETH R. MASON,
Secretary.

[FR Doc.77-15403 Filed 5-30-77;8:45 am]

[1] Commissioner Abbondi dissents from the Commission Order and Opinion.

DEPARTMENT OF LABOR

Office of the Secretary

[TA-W-1465]

ARMCO STEEL CORP.

Negative Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of

Labor herein presents the results of TA-W-1465: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on December 20, 1976 in response to a worker petition received on that date by the United Steelworkers of America on behalf of workers and former workers producing hot rolled carbon sheets and plates, strip slabs, galvanized sheets and products, coils, blooms and billets at the Ashland, Kentucky plant of Armco Steel Corporation.

The notice of investigation was published in the FEDERAL REGISTER on January 7, 1977 (42 FR 1532). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Armoc Steel Corporation, the United Steelworkers of America, the U.S. Department of Commerce, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

Without regard to whether any other criteria have been met, criterion (1) has not been met.

Evidence developed by the Department's investigation reveals that there have been no involuntary separations of production workers from employment at the Ashland, Kentucky plant of Armco Steel Corporation from December 3, 1975, one year prior to the date of the petition, to the present.

Conclusion. After careful review of the facts obtained in the investigation, I conclude that a significant number or proportion of the workers at the Ashland, Kentucky plant of Armco Steel Corporation have not become totally or partially sepraated as required in section 222 of the Trade Act of 1974.

Signed at Washington, D.C. this 19th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15386 Filed 5-30-77;8:45 am]

[TA-W-1456]

ARMCO STEEL CORP.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1456: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on December 15, 1976 in response to a worker petition received on that date which was filed by the United Steelworkers of America on behalf of workers and former workers producing carbon and alloy seamless pipe and couplings at the Ambridge, Pennsylvania plant of Armco Steel Corporation.

The notice of investigation was published in the FEDERAL REGISTER on January 7, 1977 (42 FR 1532). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Armco Steel Corporation, the United Steelworkers of America, the American Iron and Steel Institute, the U.S. Department of Commerce and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in such workers' firm, or an appropriate subdivision of the firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all four of the above criteria have been met.

Significant Total or Partial Separations. Employment at the Ambridge Works declined 7 percent in 1975 compared to 1974 and declined 6 percent in 1976 compared to 1975. Average hours worked declined 12 percent in 1976 compared to 1975.

Sales or Production, or Both Have Decreased Absolutely. Sales in terms of quantity declined 8 percent in 1975 compared to 1974 and declined 30 percent in 1976 compared to 1975. Production in terms of quantity increased 2 percent in 1975 compared to 1974 and decreased 29 percent in 1976 compared to 1975.

Increased Imports. Imports of carbon steel pipe decreased from 1781.5 thousands of short tons in 1974 to 1542.5 thousands of short tons in 1975. Imports increased to 1820.7 thousand of short tons in 1976. Imports of alloy steel pipe increased from 104.6 thousands of short tons in 1974 to 131.4 thousands of short tons in 1975. Imports increased in 1976 to 173.9 thousands of short tons.

Contributed Importantly. Customers of the Ambridge Works increased purchases of imports directly or indirectly by increasing purchases from domestic sources that supply imported seamless steel pipe and couplings.

Conclusion. After careful review of the facts obtained in the investigation, I conclude that increases of imports of articles like or directly competitive with seamless steel pipe and couplings produced at the Ambridge, Pennsylvania plant of Armco Steel Corporation contributed importantly to the separation of workers of that firm. In accordance with the provisions of the Act, I make the following certification:

All workers of the Ambridge, Pennsylvania plant of Armco Steel Corporation who became totally or partially separated from employment on or after February 14, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 19th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc. 77-15389 Filed 5-30-77;8:45 am]

[TA-W-1294]

J. H. BONCK COMPANY, INC.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1294: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on November 22, 1976 in response to a worker petition received on that date which was filed on behalf of workers and former workers producing men's and boys' woven dress, sport and uniform/work shirts and girls' and boys' woven parochial school shirts and blouses at the J. H. Bonck Company, Inc., New Orleans, Louisiana.

The Department of Labor hereby withdraws the Termination of Investigation notice pertaining to this case which was published in the FEDERAL REGISTER on March 29, 1977 (42 FR 16679).

The notice of investigation was published in the FEDERAL REGISTER on December 3, 1976 (41 FR 53090). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of J. H. Bonck Company, its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number of proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all four of the above criteria have been met.

Significant Total or Partial Separations. Employment at J. H. Bonck Company declined 9.1 percent in 1975 compared to 1974 and increased 5.5 percent in 1976 compared to 1975. Employment in the fourth quarter of 1976 fell 13.3 percent compared to the fourth quarter of 1975.

Sales or Production, or Both, Have Decreased Absolutely. Sales at J. H. Bonck Company declined 9.5 percent in 1975 compared to 1974 and declined 2.9 percent in 1976 compared to 1975.

Increased Imports. Imports of men's and boys' dress, sport and uniform/work shirts and girls' and boys' woven parochial school shirts and blouses increased from 85.0 million units in 1974 to 91.8 million units in 1975. Imports increased from 91.8 million units in 1975 to 144.0 million units in 1976.

Contributed Importantly. Customers of J. H. Bonck Company increased purchases of imports directly or by increasing purchases from domestic sources that supply imported men's and boys' woven dress sport and uniform/work shirts and girls' and boys' woven parochial school shirts and blouses.

Conclusion. After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with men's and boys' woven dress sport and uniform/work shirts and girls' and boys' woven parochial school shirts and blouses produced by J. H. Bonck Company contributed importantly to the total or partial separations of the workers at that firm. In accordance with the provisions of the Act I make the following certification:

All workers of J. H. Bonck Company, Inc., New Orleans, Louisiana who became totally or partially separated from employment on or after October 1, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 19th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15387 Filed 5-30-77;8:45 am]

[TA-W-1521]

BROWN SHOE COMPANY

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1521: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on December 27, 1977 in response to a worker petition received on December 27, 1977 which was filed on behalf of workers and former workers producing children's shoes at the Union City, Tennessee plant of the Brown Shoe Company.

The notice of investigation was published in the FEDERAL REGISTER on January 18, 1977 (42 FR 3368). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Brown Shoe Company, its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all of the above criteria have been met.

Significant Total or Partial Separations. Employment of production workers declined 8.4 percent from 1974 to 1975 and declined 3.4 percent from 1975 to 1976.

Employment declined 2.0 percent in the fourth quarter of 1975 compared to the same quarter of 1974.

Sales or Production, or Both, Have Decreased Absolutely. Production of Children's shoes declined 22.2 percent in quantity from 1974 to 1975 and increased 2.1 percent in quantity from 1975 to 1976. Production declined 1.4 percent in quantity in the last six months of 1976 compared to the same period of 1975. Production declined 15.3 percent in the fourth quarter of 1976 compared to the fourth quarter of 1975. Sales declined 1.7 percent in value from 1974 to 1975 and declined 3.6 pecent from 1975 to 1976. The sales data have been adjusted for price increases.

Increased Imports. Imports of children's nonrubber footwear except athletic declined absolutely in each year from 1972 to 1975, and then increased from 1975 to 1976. The ratio of imports to domestic production increased from 60.0 percent in 1975 to 72.1 percent in 1976.

Contributed Importantly. Evidence developed during the course of the investigation revealed that retail customers switched purchases from Brown Shoe Company to imported children's shoes from 1975 to 1976.

Conclusion. After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with children's nonrubber footwear produced at the Union City, Tennessee plant of the Brown Shoe Company contributed importantly to the total or partial separation of the workers of that plant. In accordance with the provisions of the Act, I make the following certification:

All workers engaged in employment related to the production of children's nonrubber footwear at the Union City, Tennessee plant of Brown Shoe Company who became totally or partially separated from employment on or after June 26, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15388 Filed 5-30-77;8:45 am]

Office of the Secretary

CERTIFICATIONS OF ELIGIBILITY TO APPLY FOR WORKER ADJUSTMENT ASSISTANCE

Notice of Investigations

Petitions have been filed with the Secretary of Labor under Section 221(a) of the Trade Act of 1974 ("the Act") and are identified in the Appendix to this notice. Upon receipt of these petitions, the Director of the Office of Trade Adjustment Assistance, Bureau of International Labor Affairs, has instituted investigations pursuant to Section 221(a) of the Act and 29 CFR 90.12.

The purpose of each of the investigations is to determine whether absolute or relative increases of imports of articles like or directly competitive with articles produced by the workers' firm or an ap-

propriate subdivision thereof have contributed importantly to an absolute decline in sales or production, or both, of such firm or subdivision and to the actual or threatened total or partial separation of a significant number or proportion of the workers of such firm or subdivision.

Petitioners meeting these eligibility requirements will be certified as eligible to apply for adjustment assistance under Title II, Chapter 2, of the Act in accordance with the provisions of Subpart B of 29 CFR Part 90. The investigations will further relate, as appropriate, to the determination of the date on which total or partial separations began or threatened to begin and the subdivision of the firm involved.

Pursuant to 29 CFR 90.13, the petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing, provided such request is filed in writing with the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than June 10, 1977.

Interested persons are invited to submit written comments regarding the subject matter of the investigations to the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than June 10, 1977.

The petitions filed in this case are available for inspection at the Office of the Director, Office of Trade Adjustment Assistance, Bureau of International Labor Affairs, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, D.C. 20210.

Signed at Washington, D.C. this 18th day of May 1977.

MARVIN M. FOOKS,
Director, Office of Trade Adjustment Assistance.

Appendix

Petitioner	Location	Date received	Date of petition	Petition No.	Articles produced
Union/workers or former workers of:					
Fashion Mate, Inc. (ILGWU).	Brooklyn, N.Y.	May 17, 1977	Apr. 28, 1977	TA-W-2,076	Ladies' pantsuits and dresses.
Maryland Monotype, Ltd. (workers).	Woodlawn, Md.	May 16, 1977	May 11, 1977	TA-W-2,077	Printing of mathematical and scientific books and journals.
Thelinda Knitting Mills, Inc. (workers).	Brooklyn, N.Y.	do	do	TA-W-2,078	Cutting, sewing, finishing and pressing knitted fabrics to manufacturer ladies' sportswear.
U & I, Inc. (company)	Salt Lake City, Utah.	May 17, 1977	May 6, 1977	TA-W-2,079	Processing of beet sugar.
Do	Garland, Utah	do	do	TA-W-2,080	Processing of beet sugar.

[FR Doc.77-15274 Filed 5-27-77;8:45 am]

[TA-W-1426]

CONNORS STEEL CO.

Negative Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1426: Investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on December 15, 1976 in response to a worker petition received on December 15, 1976 which was filed by the United Steelworkers of America on behalf of workers and former workers producing steel at the Birmingham, Alabama plant of the Connors Steel Company, a subsidiary of H. K. Porter Company, Inc.

The Notice of Investigation was published in the FEDERAL REGISTER on January 4, 1977 (42 FR 882). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of H. K. Porter Company, Inc., its customers, the American Iron and Steel Institute, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts, and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibilty requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in such workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The Department's investigation revealed that although the first two criteria have been met, the third criterion has not been met with respect to bar-size light shapes and the fourth criterion has not been met with respect to other products manufactured at the Birmingham plant.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Average employment of production workers at the Birmingham plant of Connors Steel declined 21.5 percent in 1975 compared to 1974 and then increased 9.7 percent in 1976 compared to 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Total production at the Birmingham plant declined 39.7 percent in quantity in 1975 compared to 1974 and then increased 26.0 percent in 1976 compared to 1975.

Sales of bar-size light shapes structural shapes and cold drawn bars increased in both quantity and value in 1976 compared to 1975 after declining in 1975 compared to 1974. Sales of concrete reinforcing bars decreased each year from 1974 to 1976.

INCREASED IMPORTS

Imports of bar-size light shapes, the principal product manufactured at the Birmingham plant, decreased from 521.5 thousand tons in 1974 to 167.2 thousand tons in 1975 and to 164.3 thousand tons in 1976. The ratio of imports to domestic shipments of bar-size light shapes declined from 53.1 percent in 1974 to 22.7 percent in 1975 and to 19.5 percent in 1976.

Imports of carbon steel structural shapes decreased from 1,614.0 thousand tons in 1972 to 804.9 thousand tons in 1975 and then rose to 1,351.4 thousand tons in 1976. The ratio of imports to domestic shipments of carbon structural shapes declined from 34.1 percent in 1972 to 19.5 percent in 1975 and then increased to 40.0 percent in 1976.

Imports of cold drawn steel bars decreased from 131.9 thousand tons in 1972 to 65.6 thousand tons in 1975 and then rose to 70.3 thousand tons in 1976. The ratio of imports to domestic shipments of cold drawn bars declined from 9.5 percent in 1972 to 4.7 percent in 1974, rose to 5.5 percent in 1975 and fell to 5.3 percent in 1976.

Imports of concrete reinforcing bars fell from 477.5 thousand tons in 1974 to 141.9 thousand tons in 1975 and rose to 192.2 thousand tons in 1976. The ratio of imports to domestic shipments of concrete reinforcing bars declined from 9.5 percent in 1974 to 3.9 percent in 1975 and rose to 5.0 percent in 1976.

The Department's investigation revealed that of seventeen customers contacted, fourteen do not purchase imported steel products similar to those purchased from Connors. The same fourteen customers have been increasing their purchases from Connors. Several noted the high quality of Connors' products as a factor in their purchasing decision.

One of the customers who does purchase imports has maintained his purchases from Connors at a steady level and stated that imports do not affect the amount of steel purchased from Con-

nors. Another customer who purchases imports has tripled his purchases from Connors over the last year.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with the steel products manufactured at the Birmingham plant of Connors Steel Company, a subsidiary of H. K. Porter Company, Inc., did not contribute importantly to the total or partial separations of the workers producing such articles at that plant.

Signed at Washington, D.C., this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15390 Filed 5-27-77;8:45 am]

[TA-W-1332]

CRANE CO.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1332: Investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on November 30, 1976 in response to a worker petition received on November 30, 1976 which was filed by the United Steelworkers of America on behalf of workers and former workers producing steel valves at the Chattanooga, Tennessee plant of Crane Company.

The Notice of Investigation was published in the FEDERAL REGISTER on December 21, 1976 (41 FR 55603). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Crane Co., their customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation revealed that all four criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

The average number of hourly workers at the Chattanooga, Tennessee plant of Crane Co. declined 26 percent in 1976 compared to 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Annual sales of valves produced at the Chattanooga, Tennessee plant in constant dollars declined 42 percent in 1976 compared to 1975.

Annual production at the Chattanooga plant declined 30 percent in 1976 compared to 1975.

INCREASED IMPORTS

Imports of articles considered like or directly competitive with the valves produced at the Chattanooga plant are classified under the category "valves and similar devices" in the official import statistics. Statistics are also compiled for a sub-category of valves and similar devices: "hand-operated and check valves, made of iron and steel." The principal types of valves produced at the Chattanooga plant are of the hand-operated and check type, made of iron and steel.

Imports of valves and similar devices increased each year from 56.5 million dollars in 1971 to 165.1 million dollars in 1975. Imports further increased from 127.6 million dollars in the first nine months of 1975 to 134.2 million dollars in the first nine months of 1976.

The ratio of imports to domestic production of valves and similar devices increased each year from 1971 through 1975, from 2.4 percent in 1971 to 4.7 percent in 1975. The ratio of imports to domestic production decreased from 4.9 percent in the first nine months of 1975 to 4.5 percent in the first nine months of 1976.

Imports of hand-operated and check iron and steel valves increased in each year compared to the immediately preceding year from 13.3 million dollars in 1971 to 75.0 million dollars in 1975. Imports declined from 59.8 million dollars in the first nine months of 1975 to 49.3 million dollars in the first nine months of 1976. The level of imports in the first 9 months of 1976 is 46.6 percent, greater than the average level of imports for the years 1971 through 1975.

CONTRIBUTED IMPORTANTLY

Customers of Crane Co. indicated that they reduced purchases of steel valves from Crane Co. while increasing purchases of steel valves from imported sources. In addition some customers who are distributors of domestic valves reported that they lost sales to end users of valves who began buying imports. The end users confirmed that they had reduced purchases of steel valves manufactured by Crane and increased purchases of imported steel valves.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increased imports of articles like or directly competitive with the valves produced at the Chattanooga, Tennessee plant of Crane Co. contributed importantly to the total or partial separations of the workers at that plant. In accordance with the provisions of the Act, I make the following certification:

All workers at the Chattanooga, Tennessee plant of Crane Company who became totally or partially separated from employment on or after February 15, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C., this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15391 Filed 5-27-77;8:45 am]

[TA-W-1176]

GOTHAM FIFTH AVENUE, INC.

Revised Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor issued a Notice of Negative Determination on November 30, 1976, published in the FEDERAL REGISTER on December 14, 1976 (41 FR 54157), regarding eligibility to apply for adjustment assistance applicable to former workers producing men's suits and sportcoats at Gotham Fifth Avenue, Incorporated, New York, New York.

On the basis of a legal brief filed by Jacob Goldblatt, Gotham Company President, on May 2, 1977, the Office of Trade Adjustment Assistance instituted a review investigation. The review investigation developed additional information from officials and employees of Gotham Fifth Avenue and court records.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed impor-

tantly" means a cause which is important but not necessarily more important than any other cause.

The reinvestigation has revealed that all four criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Gotham Fifth Avenue ceased production of men's suits and sportcoats in early 1975. Subsequent to the cessation of production, Gotham continued to operate its retail outlet by selling inventories of men's suits and sportcoats from its manufacturing operation and by selling men's clothing purchased from outside suppliers. The company filed for bankruptcy in July 1975 and was liquidated in February 1976. All employees were laid off by March 1976, subsequent to the liquidation.

SALES OR PRODUCTION, OR BOTH, HAVE DECLINED ABSOLUTELY

All production at Gotham's manufacturing facility ceased in early 1975. All sales by Gotham Fifth Avenue ceased in February 1976, when the company was liquidated.

INCREASED IMPORTS

U.S. imports of men's and boy's tailored suits increased absolutely and relatively in each year from 1972 through 1976. The ratio of imports to U.S. production and consumption increased from 18.3 percent and 15.5 percent, respectively, in 1975 to 20.0 percent and 16.7 percent, respectively, in 1976.

U.S. imports of men's and boy's tailored dress coats and sportcoats increased absolutely and relatively from 1972 to 1973. Imports increased relative to domestic production and consumption from 1973 to 1974 and then increased absolutely and relatively from 1974 to 1975 and from 1975 to 1976. The ratio of imports to domestic production and consumption increased from 28.2 percent and 22.0 percent, respectively, in 1975 to 32.4 percent and 24.5 percent, respectively, in 1976.

CONTRIBUTED IMPORTANTLY

The evidence developed during the Department's reinvestigation indicated that Gotham operated a retail outlet as part of the integrated production process of its manufacturing operations. Approximately 45–60 percent of the stock of the retail outlet in the fall of 1975 consisted of men's suits and sportcoats produced by Gotham. The remaining stock was purchased from outside suppliers.

Gotham ceased manufacturing operations in early 1975. Company officials stated that the cessation of production was a temporary measure for the purpose of depleting inventories. This attempt failed and the company President filed a petition for bankruptcy in July 1975. The company was liquidated in February 1976.

Gotham's customers were individual consumers. Company officials attributed the decline in sales at Gotham to increased competition from imported men's suits and sportcoats.

CONCLUSION

After careful review of the facts obtained in the reinvestigation of TA-W-1176, Gotham Fifth Avenue, New York, New York, I conclude that increases of imports of men's suits and sportcoats like or directly competitive with the men's suits and sportcoats produced by Gotham Fifth Avenue, Incorporated, New York, New York, contributed importantly to the total or partial separations of the workers at that firm. In accordance with the provisions of the Act, I hereby issue the following revised determination:

All workers engaged in employment related to the production of men's suits and sportcoats at Gotham Fifth Avenue, Incorporated, New York, New York, including the workers associated with the related retail operation who became totally or partially separated on or after September 23, 1975 are certified eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C., this 19th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15392 Filed 5-27-77;8:45 am]

[TA-W-1652]

GULFWAY TRAWLERS, INC.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1652: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on February 10, 1977 in response to a worker petition received on February 10, 1977 which was filed on behalf of workers and former workers who are engaged in shrimp fishing at Gulfway Trawlers, Incorporated, Port Isabel, Texas.

The notice of investigation was published in the FEDERAL REGISTER on March 8, 1977 (42 FR 13086). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Gulfway Trawlers, Inc., its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all four of the above criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

The number of workers per ship has remained constant over the 1974–1976 period as insurance regulations require a minimum crew to meet safety standards. Employment records in the shrimp fishing industry are not maintained according to number of hours worked. Therefore employment data are based on the average number of trips per boat and average crew earnings per boat.

The average number of trips per boat at Gulfway Trawlers, Inc. increased 8.7 percent in 1975 compared to 1974 and then remained constant in 1976 compared to 1975. The average number of trips per boat declined 33.3 percent in the last quarter of 1976 compared to the same quarter of 1975.

Average crew earnings per boat increased 30.3 percent in 1975 compared to 1974 and increased 16.9 percent in 1976 compared to 1975.

Average crew earnings per boat declined 18.4 percent in the last quarter of 1976 compared to the same quarter of 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

The average shrimp catch per boat in terms of quantity at Gulfway Trawlers, Inc. declined 2.4 percent in 1975 compared to 1974 and declined 5.0 percent in 1976 compared to 1975.

INCREASED IMPORTS

Imports of shrimp in terms of quantity declined absolutely and relatively in 1973 compared to 1972 and then increased absolutely and relatively in 1974 compared to 1973. Imports declined absolutely and relatively in 1975 compared to 1974 and then increased 17.2 percent in 1976 compared to 1975. The ratio of imports to domestic production increased from 111.4 percent in 1975 to 116.8 percent in 1976. The ratio of imports to domestic consumption declined from 57.0 percent in 1975 to 56.2 percent in 1976.

CONTRIBUTED IMPORTANTLY

Gulfway's only customer indicated that it had increased its purchases of imported shrimp. This customer cited price, quality and availability of supply as the most important factors in its purchasing decisions.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with shrimp produced by Gulfway Trawlers, Incorporated, Port Isabel, Texas contributed importantly to the total or partial separations of the workers at that firm. In accordance with the provisions of the Act, I make the following certification:

All workers engaged in employment related to the production of shrimp at Gulfway Trawlers, Incorporated, Port Isabel, Texas, who became totally or partially separated from employment on or after October 1, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15393 Filed 5-27-77;8:45 am]

[TA-W-1628]

HULL DYE AND PRINT WORKS, INC.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1628: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on February 7, 1977 in response to a worker petition received on January 27, 1977 which was filed by the Textile Printing Colorist Guild on behalf of workers and former workers producing printed and dyed textiles at Hull Dye and Print Works, Incorporated, Derby, Connecticut. A subsequent petition was filed by the Machine Printers and Engravers Association.

The notice of investigation was published in the FEDERAL REGISTER on March 4, 1977 (42 FR 12497). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Hull Dye and Print Works Incorporated, its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, the American Textile Manufacturers Institute, industry analysts, and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in such workers' firm or an appropriate subdivision of the firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat, thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all of the above criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Average employment at Hull increased 2.9 percent from 1975 to 1976. Employment declined 2.2 percent in the last nine months of 1976 compared to the same period in 1975. Beginning in the second quarter of 1976, average employment declined in each quarter compared to the previous quarter. Average employment declined 2.3 percent in the third quarter and 9.2 percent in the fourth quarter compared to the same quarter of 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Total production of dyed and printed textiles at Hull declined 20.0 percent, in quantity, and 24.5 percent, in value, from 1975 to 1976. Total sales declined 19.7 percent from 1975 to 1976.

INCREASED IMPORTS

Imports of cotton broadwoven print cloth declined absolutely from 1972 to 1973, increased from 1973 to 1974, declined 10.5 percent from 1974 to 1975 and then increased 55.6 percent from 1975 to 1976. The ratios of imports to domestic production and consumption increased from 13.5 percent and 12.9 percent, respectively, in 1975 to 20.6 percent and 19.8 percent, respectively, in 1976.

Imports of man-made woven printed fabric declined absolutely from 1972 to 1973, increased from 1973 to 1974, declined .8 percent from 1974 to 1975 and then increased 23.5 percent from 1975 to 1976. The ratios of imports to domestic production and consumption remained less than one percent from 1972 through 1976.

Imports of bleached and dyed woven man-made fabrics decreased absolutely from 1972 to 1973 and from 1973 to 1974. Imports increased 13.2 percent from 1974 to 1975 and increased 8 percent from 1975 to 1976. The ratios of imports to both domestic production and consumption declined from 3.9 percent in 1975 to 3.7 percent in 1976.

CONTRIBUTED IMPORTANTLY

The petition alleges that increased imports of apparel adversely affected production and employment at Hull Dye and Print. Converters, who are customers of Hull stated that imports of apparel have been a factor in reduced business with Hull. Imported wearing apparel cannot be considered to be like or directly competitive with printed fabric. Imports of fabric must be considered in determining import injury to workers producing printed fabric.

Customers of Hull and Dye Print Works are converters who buy greige goods and commission Hull to finish the fabric, by printing or dyeing it, in accordance with apparel manufacturers' specification. During the course of the Department's investigation, it was established that converters, in general, do not import printed or finished fabric. However, some of the converters who did business with Hull have recently begun to import fabric. The Department's survey of apparel manufacturers, who are customers of converters, revealed that manufacturers are importing printed or finished fabric for use in the manufacture of men's and women's wearing apparel. Hull's customers reported a growing trend toward manufacturers bypassing converters and purchasing finished fabric offshore or purchasing the finished fabric domestically, through foreign trading companies.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with printed and dyed textiles produced at Hull Dye and Print Works, Incorporated, Derby and Shelton, Connecticut contributed importantly to the total or partial separations of the workers at that plant. In accordance with the provisions of the Act, I make the following certification:

All workers at Hull Dye and Print Works, Incorporated, Derby and Shelton, Connecticut who became totally or partially separated from employment on or after April 1, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 23rd day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15394 Filed 5-27-77;8:45 am]

[TA-W-8T]

MAGNAVOX CO.

Determinations Regarding Revision of Certification of Eligibility To Apply for Worker Adjustment Assistance

In accordance with section 223(d) of the Trade Act of 1974, the Department of Labor herein presents the results of TA-W-8T: investigation regarding termination of certification of eligibility to apply for worker adjustment assistance as prescribed in section 223(d) of the Act.

On June 11, 1975, workers engaged in employment related to the production of monochrome and color televisions at the Jefferson City, Tennessee plant of the Magnavox Company were certified as eligible to apply for trade adjustment

assistance. All workers engaged in production of Odyssey electronic games, radio/stereo/tape combinations and cabinets for console televisions and radio/stereo/tape combinations at the Jefferson City plant; and all workers producing console color televisions at the Greenville, Tennessee plant were denied eligibility to apply for adjustment assistance. The Notice of Determination was published in the FEDERAL REGISTER on June 20, 1975 (40 FR 26084).

The investigation regarding termination of certification was initiated on May 27, 1976 to determine whether the group of workers specified above continue to meet the group eligibility requirements of Section 222 of the Act. The Notice of Investigation was published in the FEDERAL REGISTER (41 FR 26769) on June 29, 1976. No public hearing was requested and none was held.

During the course of the investigation, information was obtained from officials of the Magnavox Company, industry analysts, and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' form, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "constributed importantly" means a cause which is important but not necessarily more important than any other cause.

Whenever it becomes evident that any of the above criteria are no longer met, the certification as issued must be revised to include a termination date. The termination date would apply only with respect to total or partial separations occurring after this date as specified in the revised certification. The investigation reveals that all four criteria continue to be met with respect to monochrome televisions and that criteria one is no longer met with respect to color televisions at the Jefferson City, Tennessee plant of Magnavox Company.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Subsequent to the June 11, 1975 finding, employment of production workers in the Electronics Division of the Jefferson City plant of the Magnavox Company decreased 18 percent from 1974 to 1975 and then increased 25 percent from 1975 to 1976. Employment declined 25 percent in the first two months of 1977, when compared to the same period in 1976. All employment related to the production of P/T (portable table) color televisions ceased in September 1975, when color television production was transferred to the Greenville, Tennessee plant of Magnavox. Average weekly hours worked increased 4 percent from 1974 to 1975, and then decreased 3 percent from 1975 to 1976. Average weekly hours worked decreased 3 percent in the first two months of 1977, when compared to the same period in 1976.

Employment for salaried workers at the Jefferson City plant of Magnavox decreased seven percent from 1974 to 1975 and then increased eight percent from 1975 to 1976.

Labor turnover data for the Jefferson City plant's Electronics Division showed layoffs in the first, second and fourth quarters of 1976 equalling 43 percent, 4 percent, and 60 percent, respectively, of average quarterly employment. In the first two months of 1977, layoffs were equivalent to 14 percent of average employment.

SALES OR PRODUCTION, OR BOTH, HAVE DECLINED ABSOLUTELY

Subsequent to the June 11, 1975 finding, sales of monochrome televisions at the Jefferson City, Tennessee plant of the Magnavox Company decreased in quantity, 21 percent from 1974 to 1975 and 28 percent from 1975 to 1976. Sales of P/T color televisions is not separately identifiable for the Jefferson City plant of Magnavox, but is maintained with sales records for the Greenville, Tennessee plant. Data for Greenville was not obtained, because workers at that plant were denied eligibility to apply for adjustment assistance in the original determination.

Production of monochrome televisions at the Jefferson City plant of Magnavox decreased in quantity 1 percent from 1974 to 1975 and decreased 37 percent from 1975 to 1976. Production of P/T color televisions at the Jefferson City, Tennessee plant decreased in quantity 61 percent in the first three quarters of 1975 compared to the same period in 1974. Production ceased entirely in September 1975, when color television production was shifted to the Greenville, Tennessee plant of Magnavox.

INCREASED IMPORTS

Subsequent to the June 11, 1975 finding, imports of monochrome televisions increased absolutely and relatively from 1975 to 1976. The ratio of imports to domestic production and consumption increased from 193.8 percent and 67.3 percent, respectively, in 1975, to 311.3 percent and 77.8 percent in 1976.

The ratio of imports to domestic production and consumption increased from 23.4 percent and 19.5 percent, respectively, in 1975 to 55.0 percent and 36.2 percent, respectively, in 1976.

CONTRIBUTED IMPORTANTLY

The evidence developed during the Department's investigation revealed that Magnavox dealers have reduced purchases of black and white televisions from Magnavox and increased purchases of imported black and white televisions from 1975 to 1976. These customers attributed the shift in purchasing patterns to the lower price and better quality of imports.

Additionally, in November 1976 the Magnavox Company began importing small screen monochrome televisions from Japan, due to the lower price and greater availability of imports. Imports by the company in the November-December period equalled 332 percent of production of monochrome televisions at Jefferson City during the same period.

Magnavox Company officials anticipate future layoffs at the Jefferson City, Tennessee plant due to import related declines in sales and production of monochrome televisions.

Production of P/T color televisions at the Jefferson City plant ceased in September 1975, when all P/T color television production was shifted to the Greenville plant. All employment related to the production of P/T color televisions at the Jefferson City plant ceased at that time. Company officials at Magnavox stated that subsequent to the shift in production, all color television production employees were transferred to other product lines in the Electronics Division.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that total or partial separations of workers engaged in employment related to the production of monochrome televisions at the Jefferson City, Tennessee plant of the Magnavox Company continue to be attributable to the conditions specified in Section 222 of the Trade Act of 1974. Therefore, the certification issued on June 11, 1975 for workers engaged in employment related to the production of monochrome televisions at the Jefferson City, Tennessee plant of Magnavox (TA-W-8) is not revised to include a termination date of eligibility to apply for adjustment assistance.

I further conclude that total or partial separations of workers engaged in the production of P/T color televisions at the Jefferson City, Tennessee plant of the Magnavox Company are no longer attributable to the conditions specified in Section 222 of the Trade Act of 1974. In accordance with Section 223(d) of the Act, I hereby revise the certification of June 11, 1975 to read as follows:

That all workers engaged in employment related to the production of color televisions at the Jefferson City, Tennessee plant of the Magnavox Company (TA-W-8) who became or will become totally or partially separated on or after October 3, 1974 and before May 15, 1977 be certified eligible to apply for trade adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974. All employees who became or will become totally or partially separated from employment related to the production of color televisions at the Jefferson City, Tennessee plant after May 15, 1977 are denied certification of eligibility to apply for adjustment assistance.

Signed at Washington D.C. this 13th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15395 Filed 5-27-77;8:45 am]

[TA-W-1657]

MILADY BRASSIERE AND CORSET CO., INC.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1657: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on February 16, 1977 in response to a worker petition received on February 2, 1977 which was filed by the International Ladies' Garment Workers' Union on behalf of workers and former workers producing brassieres and girdles at the Milady Division of Milady Brassiere and Corset Company, Incorporated, New York.

The notice of investigation was published in the FEDERAL REGISTER on March 8, 1977 (42 FR 13091). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Milady Brassiere and Corset Company, Incorporated, its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that all four of the above criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Average employment of plant production workers declined 21.2 percent in 1975 compared to 1974 and increased 1.9 percent in 1976 compared to 1975. Employment declined 16.7 percent and 5.0 percent in the third and fourth quarters of 1976, respectively, compared to the same quarters of 1975. Separations occurred throughout 1976. Workers are used interchangeably between brassieres and girdles.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Plant sales equal production. Plant sales declined 21.2 percent in 1975 compared to 1974 and decreased 24.4 percent in 1976 compared to 1975. Sales also declined 49.8 percent and 37.2 percent in the third and fourth quarters of 1976, respectively, compared to the same quarters in 1975.

INCREASED IMPORTS

Imports of brassieres, bra-lettes and bandeaux increased each year, from 4.995 million dozens in 1971 to 6.921 million dozens in 1975 and increased again to 8.751 million dozens in 1976.

Imports of corsets and girdles increased from 55,000 dozens in 1971, to 106,000 dozens in 1972; declined to 66,000 dozens in 1973; and increased each year, from 116,000 dozens in 1974, to 231,000 dozens in 1976.

CONTRIBUTED IMPORTANTLY

A representative sample of Milady's customers indicated that customers increased purchases of imported brassieres and girdles, while decreasing their purchases from the subject plant.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with brassieres and girdles produced at the Milady Division of Milady Brassiere and Corset Company, Incorporated, New York, New York contributed importantly to the total or partial separations of the workers engaged in the production of such products at that plant. In accordance with the provisions of the Act, I make the following certification:

All workers at the Milady Division of Milady Brassiere and Corset Company, Incorporated, New York, New York who became totally or partially separated from employment on or after January 28, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15396 Filed 5-27-77;8:45 am]

[TA-W-1565]

MIRED FOUNDATIONS, INC.

Negative Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1565: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on January 1, 1977 in response to a worker petition received on January 1, 1977 which was filed by the Corset and Brassiere Workers Union on behalf of workers and former workers producing girdles at the New York City plant of Mired Foundations, Inc., a division of Lido International, Inc.

The notice of investigation was published in the FEDERAL REGISTER on January 28, 1977 (42 FR 5453). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Lido International, Inc., its customers, the U.S. Department of Commerce, the U.S. International Trade Commission, industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

The investigation has revealed that criterion (4) has not been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

The average weekly employment of production workers at Mired Foundations decreased 13.3 percent in 1975 compared with 1974 and decreased 53.8 percent in 1976 compared with 1975. Average weekly hours worked increased 11.2 percent in 1976 compared with 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Production of girdles in terms of quantity decreased 12.6 percent in 1975 compared with 1974 and decreased 61.0 percent in 1976 compared with 1975.

INCREASED IMPORTS

Imports of girdles and corsets in terms of quantity decreased 37.7 percent in 1973 compared with 1972, increased 75.8 percent in 1974 compared with 1973, increased 18.1 percent in 1975

compared with 1974 and increased 68.6 percent in 1976 compared with 1975. The ratios of imports to domestic production and consumption, unavailable for 1976, increased from 2.6 percent for each in 1974 to 3.1 percent for each in 1975.

CONTRIBUTED IMPORTANTLY

Customers indicated that they were not buying imported girdles and that they found no appreciable import influence in the marketing of girdles. According to the customers, the quality, styling and brand identification offered by domestic girdles are superior to those of imported girdles and imports do not offer a great enough price differential to warrant greater interest on the part of consumers. As the import to domestic production and consumption ratios for corsets and girdles indicate, 3.1 percent in 1975, there is not the sufficient volume to generate large production runs of girdles offshore, according to customers, to the extent that potential labor savings might be reflected in the price of girdles.

It was furthermore stated that customers had either held purchases of the Mired girdle at relatively constant levels or had reduced them sharply in 1976 compared with 1975. In the cases of decreased purchases, customers either had shifted to other domestic sources or reduced girdle purchases in general in response to declining consumer demand for girdles. With changing fashion trends, women have increasingly abandoned the wearing of girdles as panty hose and light weight panty girdles have become more popular with today's women. The number of girdles produced by Mired and sold under the Lido label declined in 1976 as the company chose to deemphasize its participation in the girdle business in favor of brassieres and health and beauty aids which it considered to offer greater sales and profit potentials. These products are not manufactured by Mired Foundations.

CONCLUSION

After a careful review of the facts obtained in the investigation, it is concluded that imports of articles like or directly competitive with girdles produced at the New York City plant of Mired Foundations, Inc., a division of Lido International Inc., have not contributed importantly to the total or partial separations of workers at that plant as required for certification under Section 222 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15397 Filed 5-27-77;8:45 am]

[TA-W-1477]

INTERLAKE, INC.

Negative Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1477: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on December 20, 1976 in response to a worker petition received on December 20, 1976 which was filed by the United Steelworkers of America on behalf of workers and former workers producing molten iron at the Chicago, Illinois plant of Interlake, Incorporated.

The notice of investigation was published in the FEDERAL REGISTER on January 7, 1977 (42 FR 1534). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of the United Steelworkers of America and Interlake, Incorporated.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relatve to domestc producton; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

Without regard to whether any other criteria have been met, criterion (1) has not been met.

Evidence developed in the Department's investigation reveals that no involuntary separations occurred since January of 1973 except for three (3) periods during which some employees were laid off for short periods of time. The separations were due to shutdowns for major maintenance and repairs of equipment. The last separations occurred in June 1975 more than one year prior to the date of the petition, December 3, 1976.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that a significant number or proportion of workers at the Chicago, Illinois plant of Interlake, Incorporated have not become totally or partially separated as required in Section 222 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15398 Filed 5-27-77;8:45 am]

[TA-W-1605]

SHERIDAN AMC/JEEP INC.

Negative Determination Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1605: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on January 26, 1977 in response to a worker petition received on January 26, 1977 which was filed on behalf of workers and former workers selling and servicing automobiles and recreational vehicles and selling automotive parts at Sheridan AMC/Jeep Incorporated, Kenosha, Wisconsin.

The notice of investigation was published in the FEDERAL REGISTER on February 8, 1977 (42 FR 8205). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Sheridan AMC/Jeep Inc. and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in such workers' firm, or an appropriate subdivision of the firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed im-

portantly" means a cause which is important, but not necessarily more important than any other cause.

If any of the above criteria is not satisfied, a negative determination must be made.

Sheridan AMC/Jeep Inc. does not produce an article within the meaning of Section 222(3) of the Act and this Department has already determined that the performance of services are not covered by the adjustment assistance program. See Notice of Determination in Pan American World Airways, Incorporated (TA-W-153, 40 FR 54639). The only question in this case is whether American Motors Corporation, i.e., a firm which produces an article, namely automobiles, and for whom the service is provided, can be considered the "workers' firm." See Notice of Determination in Nu-Car Driveaway, Incorporated (TA-W-393, 41 FR 12749).

Prior to October 1976, Sheridan AMC/Jeep Inc., then known as Kenosha AMC/Jeep Inc., was an independently owned and operated automobile dealership. American Motors Corporation (AMC) had no capital or financial investment in the dealership and no control over its operation.

In October 1976, Sheridan AMC/Jeep was incorporated under the provisions of the AMC Dealer Investment Program. This program was established to temporarily provide the additional capital funds necessary to permit properly qualified individuals to become dealers. The program is administered by a subsidiary of AMC which temporarily becomes majority stockholder in the dealership. The dealer is obligated to repurchase that stock as soon as is economically feasible. During the period of joint ownership, the AMC subsidiary does not influence the daily operation of the dealership. All expenses of the firm are paid by the dealership.

The workers upon whose behalf this petition was filed were hired and are paid by Sheridan AMC/Jeep Inc. They are supervised by Sheridan AMC/Jeep personnel only. All employment benefits which they receive are provided by Sheridan AMC/Jeep Inc.

CONCLUSION

After careful review of the issues and facts involved, I have determined that services of the kind provided by Sheridan AMC/Jeep Inc. are not "articles" within the meaning of Section 222(3) of the Trade Act of 1974, and that the American Motors Corporation cannot be considered the "workers' firm." The petition for trade adjustment assistance is, therefore, denied.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15399 Filed 5-27-77;8:45 am]

[TA-W-1639]

PALMLAND FASHIONS, INC.

Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-1639: investigation regarding certification of eligibility to apply for worker adjustment assistance as prescribed in Section 222 of the Act.

The investigation was initiated on January 17, 1977 in response to a worker petition received on that date which was filed by the Amalgamated Clothing and Textile Workers Union on behalf of workers and former workers producing men's sport shirts at Palmland Fashions, Incorporated, Miami, Florida a wholly owned subsidiary of Allied Artists Industries, Inc.

The notice of investigation was published in the FEDERAL REGISTER on March 4, 1977 (42 FR 12498). No public hearing was requested and none was held.

The information upon which the determination was made was obtained principally from officials of Palmland Fashions, its customers, the U.S. Department of Commerce, the U.S. International Trade Commission and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in such workers' firm, or an appropriate subdivision of the firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have decreased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important but not necessarily more important than any other cause.

Evidence developed in the Department's investigation reveals that all four of the above criteria have been met.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Employment at Palmland Fashions decreased 4.0 percent in 1975 compared to 1974 and decreased 16.7 percent in 1976 compared to 1975. Average weekly hours worked declined 8.3 percent in 1976 compared to 1975.

SALES OR PRODUCTION, OR BOTH, HAVE DECREASED ABSOLUTELY

Sales of men's sport shirts in terms of value increased 20.4 percent in 1975 compared to 1974 but decreased 28.8 percent in 1976 compared to 1975.

Production data were not available.

INCREASED IMPORTS

Imports of men's and boys' knit sport and dress shirts increased to 78.8 million units in 1973 from 67.2 million in 1972. Imports decreased to 54.9 million units in 1974 but increased to 66.2 million in 1975 and increased again to 74.0 million in 1976. The ratio of imports to domestic production creased to 25.6 in 1973 from 24.0 in 1972. In 1974 the import—production ratio decreased to 17.8 but increased in 1975 to 20.9.

CONTRIBUTED IMPORTANTLY

Customers of Palmland Fashions increased purchases of imports directly or indirectly by increasing purchases from domestic sources that supply imported men's sport shirts.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that increases of imports like or directly competitive with men's sport shirts produced by Palmland Fashions, Miami, Florida contributed importantly to the separations of workers of that firm. In accordance with the provisions of the Act, I make the following certification:

All workers of Palmland Fashions, Incorporated, Miami, Florida who became totally or partially separated from employment on or after June 26, 1976 are eligible to apply for adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974.

Signed at Washington, D.C. this 20th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15400 Filed 5-27-77;8:45 am]

[TA-W-104T]

SPRINGFIELD WIRE OF INDIANA, INC.

Revised Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223(d) of the Trade Act of 1974 the Department of Labor herein presents the results of TA-W-104T: investigation regarding termination of certification of eligibility to apply for adjustment assistance as prescribed in Section 223(d) of the Act

On October 3, 1975, workers engaged in employment related to the production of heater wire harnesses, sewing and foil bonding at the Evansville, Indiana plant of Springfield Wire of Indiana, Inc., were certified as eligible to apply for trade adjustment assistance. The Notice of Determination was published in the FEDERAL REGISTER on October 15, 1976 (40 FR 48412).

The investigation regarding termination of certification was initiated on May 27, 1976 to determine whether the group of workers specified above continue

to meet the group eligibility requirements of Section 222 of the Act. The Notice of Investigation was published in the FEDERAL REGISTER (40 FR 26297) on June 25, 1976. No public hearing was requested and none was held.

During the course of the investigation, information was obtained from officials of Springfield Wire of Indiana, Inc., industry analysts and Department files.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Trade Act of 1974 must be met:

(1) That a significant number or proportion of the workers in the workers' firm, or an appropriate subdivision thereof, have become totally or partially separated, or are threatened to become totally or partially separated;

(2) That sales or production, or both, of such firm or subdivision have increased absolutely;

(3) That articles like or directly competitive with those produced by the firm or subdivision are being imported in increased quantities, either actual or relative to domestic production; and

(4) That such increased imports have contributed importantly to the separations, or threat thereof, and to the decrease in sales or production. The term "contributed importantly" means a cause which is important, but not necessarily more important than any other cause.

Whenever it becomes evident that any of the above criteria are no longer met, the certification as issued must be revised to include a termination date. The termination date would apply only with respect to total or partial separations occurring after this date as specified in the revised certification.

Without regard to whether the other criteria are satisfied, the investigation reveals that the first criterion is no longer met with respect to workers at Evansville, Indiana plant of Springfield Wire of Indiana, Inc.

SIGNIFICANT TOTAL OR PARTIAL SEPARATIONS

Subsequent to the October 3, 1975 finding, employment of hourly workers at the Evansville, Indiana plant of Springfield Wire of Indiana, Inc. decreased 56 percent in the first four months of 1975 compared to the same period in 1974. Average hours worked decreased 11 percent in the first four months of 1975 compared to the same period in 1974. All production workers were laid off on April 18, 1975 when the plant closed.

Employment of salaried workers declined 30 percent in the first eight months of 1975, compared to the same period in 1974. All salaried workers were laid off by the end of August 1975, subsequent to the transfer of the Evansville plant to a new owner on August 28, 1975.

CONCLUSION

After careful review of the facts obtained in the investigation, I conclude that total or partial separations of workers engaged in employment related to the production of heater wire harnesses, sewing and foil bonding at the Evansville, Indiana plant of Springfield Wire of Indiana, Inc., are no longer attributable to the conditions specified in Section 222 of the Trade Act of 1974. In accordance with Section 223(d) of the Act, I hereby revise the certification of October 3, 1975 to read as follows:

That all workers of the Evansville, Indiana plant of Sprinfield Wire of Indiana, Inc. (TA-W-104), who became or will become totally or partially separated from employment on or after October 3, 1974 and before June 15, 1977 be certified eligible to apply for trade adjustment assistance under Title II, Chapter 2 of the Trade Act of 1974. All workers who became or will become totally or partially separated from employment on or after June 15, 1977 are denied certification of eligibility to apply fro adjustment assistance.

Signed at Washington, D.C. this 19th day of May 1977.

JAMES F. TAYLOR,
Director, Office of Management, Administration and Planning.

[FR Doc.77-15401 Filed 5-27-77;8:45 am]

NATIONAL SCIENCE FOUNDATION

ADVISORY PANEL FOR PUBLIC UNDERSTANDING OF SCIENCE

Meeting

In accordance with the Federal Advisory Committee Act, as amended, Pub. L. 92-463, the National Science Foundation announces the following meeting.

NAME: Advisory Panel for Public Understanding of Science.

DATE AND TIME: June 16, 1977, 2 p.m. to 5 p.m., June 17, 1977, 9 a.m. to 3:30 p.m.

PLACE: Room 651, National Science Foundation, 5225 Wisconsin Avenue NW., Washington, D.C.

TYPE OF MEETING: June 16, 1977, open. June 17, 1977, closed.

CONTACT PERSON:

Mr. George W. Tressel, Program Director, Public Understanding of Science, Office of Science and Society, National Science Foundation, Washington, D.C. 20550, telephone 202-282-7770.

PURPOSE OF PANEL: To provide advice and recommendations concerning direction and priorities and to provide advice and recommendations concerning support for projects in Public Understanding of Science Program.

AGENDA:

THURSDAY, JUNE 16 (OPEN)

2 to 3:30—Discussion of the effectiveness of alternative media with nonformal audiences.

3:30 to 5—Discussion of PUOS future program plans.

FRIDAY, JUNE 17 (CLOSED)

9—Review and evaluate proposals as part of the selection process for awards.

3:30—Adjourn.

SUMMARY MINUTES: May be obtained from the Committee Management Coordination Staff, Management Analysis Office, Room 248, National Science Foundation, Washington, D.C. 20550.

REASON FOR CLOSING: The proposals being reviewed include information of a proprietary or confidential nature, including technical information; financial data, such as salaries; and personal information concerning individuals associated with the proposals. These matters are within exemptions (4) and (6) of 5 U.S.C. 552b(c), Government in the Sunshine Act.

AUTHORITY TO CLOSE MEETING: This determination was made by the Committee Management Officer pursuant to provisions of Section 10(d) of Pub. L. 92-463. The Committee Management Officer was delegated the authority to make such determinations by the Acting Director, NSF, on February 18, 1977.

M. REBECCA WINKLER,
Acting Committee Management Officer.

MAY 25, 1977.

[FR Doc. 77-15372 Filed 5-27-77;8:45 am]

SUBPANEL FOR SCIENCE FOR CITIZENS PUBLIC SERVCE SCIENCE RESIDENCIES AND PUBLIC SERVICE SCIENCE INTERNSHIPS OF THE ADVISORY PANEL FOR SCIENCE EDUCATION PROJECTS

Meeting

In accordance with the Federal Advisory Committee Act, as amended, Pub. L. 92-463, the National Science Foundation announces the following meeting.

NAME: Subpanel for Science for Citizens Public Service Science Residencies and Public Service Science Internships of the Advisory Panel for Science Education Projects.

DATE AND TIME: June 16, 1977, 7:30 p.m. to 10 p.m. June 17, 1977, 9 a.m. to 10 p.m. June 18, 1977, 9 a.m. to 10 p.m.

PLACE: Mayflower Hotel, 1127 Connecticut Avenue, NW., Washington, D.C.

CONTACT PERSON:

Ms. Rachelle Hollander, Acting Program Manager, Science for Citizens Program, Office of Science and Society, National Science Foundation, 1800 G Street, NW., Washington, D.C. 20550.

TYPE OF MEETING: Closed.

PURPOSE OF PANEL: To provide advice and recommendations concerning support for research in Public Service Science Residencies and Public Service Science Internship.

AGENDA: To review applications as part of the selection process for awards.

REASON FOR CLOSING: The applications being reviewed include information of a proprietary or confidential nature, including technical information; financial data, such as salaries; and personal

information concerning individuals associated with the proposals. These matters are within exemptions (4) and (6) of 5 U.S.C. 552b(c), Government in the Sunshine Act.

AUTHORITY TO CLOSE MEETING: This determination was made by the Committee Management Officer pursuant to provisions of section 10(d) of Pub. L. 92-463. The Committee Management Officer was delegated the authority to make such determinations by the Acting Director, NSF, on February 18, 1977.

M. REBECCA WINKLER,
Acting Committee Management Officer.

MAY 25, 1977.

[FR Doc.77-15373 Filed 5-27-77;8:45 am]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-247]

CONSOLIDATED EDISON CO. OF NEW YORK, INC.

Issuance of Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 29 to Facility Operating License No. DPR-26, issued to Consolidated Edison Company of New York, Inc. (the licensee), which revised Technical Specifications for operation of the Indian Point Nuclear Generating Unit No. 2 (the facility) located in Buchanan, Westchester County, New York. The amendment is effective as of its date of issuance.

The amendment revises the Technical Specification requirements to specify an increase in accumulator water volume at Indian Point Unit No. 2. The amendment also terminates the Commission's Order for Modification of License dated August 27, 1976, since the results of the emergency core cooling system reanalysis assuming upper head temperatures equal to the outleg (hot leg) fluid temperature and assuming 4 percent uniform steam generator tube plugging and an increased accumulator volume are conservative relative to the 10 CFR 50.46 criteria.

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 rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR § 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment transmitted by letter dated January 28, 1977, (2) Amendment No. 29 to License No. DPR-26, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Hendrick Hudson Free Library, 31 Albany Post Road, Montrose, New York.

A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 13th day of May 1977.

For the Nuclear Regulatory Commission.

ROBERT W. REID,
Chief, Operating Reactors Branch No. 4, Division of Operating Reactors.

[FR Doc.77-15118 Filed 5-27-77;8:45 am]

[Docket No. 50-247]

CONSOLIDATED EDISON CO. OF NEW YORK, INC.

Issuance of Amendment to Facility Operating License

The U.S. Nuclear Reguatory Commission (the Commission) has issued Amendment No. 30 to Facility Operating License No. DPR-26, issued to the Consolidated Edison Company of New York, Inc. (the licensee), for operation of the Indian Point Nuclear Generating Unit No. 2 (the facility), located in Buchanan, Westchester County, New York. The amendment is effective as of its date of issuance.

The amendment requires an inspection of steam generators within 12 equivalent months of operation from May 13, 1977. The Technical Specifications for the facility have also been expanded to establish steam generator leakage limits.

The Commission has made appropriate findings as required by the Atomic Energy Act of 1954, as amended, and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

For further details with respect to this action, see (1) the licensee's submittal dated May 6, 1977, (2) Amendment No. 30 to License No. DPR-26 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C. and at the Hendrick Hudson Free Library, 31 Albany Post Road, Montrose, New York. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors

Dated at Bethesda, Maryland, this 13th day of May 1977.

For the Nuclear Regulatory Commission.

ROBERT W. REID,
Chief, Operating Reactors Branch No. 4, Division of Operating Reactors.

[FR Doc.77-15119 Filed 5-27-77;8:45 am]

[Docket No. 50-255]

CONSUMERS POWER CO.

Issuance of Amendment to Provisional Operating License

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 27 to Facility Operating License No. DPR-20, issued to Consumers Power Company (the licensee), which revised Technical Specifications for operation of the Palisades Plant, (the facility) located in Covert Township, Van Buren County, Michigan. The amendment is effective as of its date of issuance.

This amendment makes revisions to the Palisades Plant Technical Specifications and ensures compliance with the fracture toughness requirements of Appendix G to 10 CFR Part 50 during heatup and cooldown operations, system hydrostatic tests and reactor core criticality.

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 rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment. For further details with respect to this action, see (1) the application for amendment dated January 6, 1977, (2) Amendment No. 27 to License No. DPR-20, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W.,

Washington, D.C. and at the Kalamazoo Public Library, 315 South Rose Street, Kalamazoo, Michigan 49006. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 5th day of May 1977.

For the Nuclear Regulatory Commission.

A. SCHWENCER,
Operating Reactors Branch No. 1, Division of Operating Reactors.

[FR Doc.77-15128 Filed 5-27-77;8:45 am]

DRAFT ENVIRONMENTAL STANDARD REVIEW PLANS, PART II

Availability of Draft for Public Comment

The Nuclar Regulatory Commission is developing Environmental Standard Review Plans for the purpose of directing the NRC staff's environmental review of applications for nuclear power plant construction permits. When completed, these plans will serve to inform interested parties of the nature of the technical portion of the environmental review and the basis for the various technical conclusions made.

The first group of draft Environmental Standard Review Plans, NUREG-0158 Part I, was issued in January 1977, the availability of which was noticed in the FEDERAL REGISTER on February 10, 1977 (42 FR 8443). Public comment was invited on these plans at that time. At this time a second group of plans, NUREG-0158 Part II, is available for review and comment. Approximately two-thirds of the total plans are now available. The remaining plans will be issued later in 1977.

Interested persons may submit comments on the second group of Draft Environmental Standard Review Plans for the Commission's consideration. Comments on this group of plans are due by July 18, 1977.

Draft Environmental Standard Review Plans (NUREG-0158 Part II) is available for inspection by the public in the Commission's Public Document Room at 1717 H Street NW., Washington, D.C. Requests for single copies should be addressed to the Director, Division of Site Safety and Environmental Analysis, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

Dated this 20th day of May 1977.

For the Nuclear Regulatory Commission.

WM. H. REGAN, Jr.,
Chief, Environmental Projects Branch 2, Division of Site Safety and Environmental Analysis.

[FR Doc.77-15129 Filed 5-27-77;8:45 am]

NORTHEAST NUCLEAR ENERGY CO. ET AL.

Notice of Issuance of Amendment to Facility Operating License and Negative Declaration

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 37 to Provisional Operating License No. DPR-21 and Amendment No. 26 to Facility Operating License No. DPR-65 to Northeast Nuclear Energy Company, the Connecticut Light and Power Company, the Hartford Electric Light Company, and Western Massachusetts Electric Company, which revised Environmental Technical Specifications for operation of the Millstone Nuclear Power Stations, Units Nos. 1 and 2, located in the Town of Waterford, Connecticut. The amendments are effective as of their date of issuance.

The amendment consists of changes to the Environmental Technical Specifications which will allow an increase from 25° F. to 28° F. of the maximum temperature increase as measured at the Quarry Cut above the intake water temperature.

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 rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a signicant hazards consideration.

The Commission has prepared an environmental impact appraisal for the revised Technical Specifications and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility dated June 1973.

For further details with respect to this action, see (1) the application for amendment May 12, 1977, (2) Amendments Nos. 37 and 26 to Licenses Nos. DPR-21 and DPR-65, (3) the Commission's related Safety Evaluation and Environmental Impact Appraisal. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C., and at the Waterford Public Library, Rope Ferry Road, Route 156, Waterford, Connecticut. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 18th day of May 1977.

For the Nuclear Regulatory Commission.

GEORGE LEAR,
Chief, Operating Reactors Branch No. 3, Division of Operating Reactors.

[FR Doc.77-15132 Filed 5-27-77;8:45 am]

[Docket No. 50-133]

PACIFIC GAS AND ELECTRIC CO.

Issuance of Amendment to Facility Operating License

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 14 to Facility Operating License No. DPR-7 issued to Pacific Gas and Electric Company for operation of the Humboldt Bay Power Plant Unit No. 3, located near Eureka, California. The amendment is effective as of its date of issuance.

This amendment increases the possession limits for Antimony-124 to facilitate startup source replacement and authorizes possession of the radionuclides Americium-241 and Radium-226 for calibration purposes.

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 rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR § 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated April 11, 1977, (2) Amendment No. 14 to License No. DPR-7, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C., and at the Humboldt County Library, 636 F Street, Eureka, California. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 13th day of May 1977.

For the Nuclear Regulatory Commission.

ROBERT W. REID,
Chief, Operating Reactors Branch No. 4, Division of Operating Reactors.

[FR Doc.77-15130 Filed 5-27-77;8:45 am]

[Docket Nos. 50-277-OL and 50-278-OL]

PHILADELPHIA ELECTRIC CO., ET AL. (PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3)

Notice of Reconstitution of Board

Edward Luton, Esq., was Chairman of the Atomic Safety and Licensing Board for the above proceeding. Because of a schedule conflict, Mr. Luton is unable to continue his service on this Board.

Accordingly, Marshall E. Miller, Esq., whose address is Atomic Safety and Licensing Board Panel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, is appointed Chairman of this Board. Reconstitution of the Board in this manner is in accordance with Section 2.721 of the Commission's Rules of Practice, as amended.

Dated at Bethesda, Maryland, this 23rd day of May 1977.

JAMES R. YORE,
Chairman, Atomic Safety and Licensing Board Panel.

[FR Doc.77-15125 Filed 5-27-77;8:45 am]

[Docket Nos. 50-514 and 50-515]

PORTLAND GENERAL ELECTRIC CO., ET AL., (PEBBLE SPRINGS NUCLEAR PLANT, UNITS 1 AND 2)

Order Establishing Schedule for Prehearing Conference

A Prehearing Conference in this matter is scheduled for Thursday, June 23, 1977, at 9 a.m., local time. It will be held at the following location:

U.S. Court of Appeals Courtroom, The Pioneer Courthouse, 555 S.W. Yamhill, Portland, Oregon 97204.

The purpose of this Prehearing Conference is to establish a future schedule for this proceeding. With respect to the above, the following matters will be discussed:

(1) S-3 (fuel cycle rule).

(2) Environmental effects of coal utilization.

(3) Seismic reports.

(4) Costs of system for zero-radioactive discharges in liquid form.

Members of the public are invited to attend but limited appearances will not be received at this Conference.

It is so ordered.

For the Atomic Safety and Licensing Board.

Dated at Bethesda, Maryland, this 20th day of May 1977.

JAMES R. YORE,
Chairman.

[FR Doc.77-15126 Filed 5-27-77;8:45 am]

REGULATORY GUIDE

Issuance and Availability

The Nuclear Regulatory Commission has issued a guide in its Regulatory Guide Series. This series has been developed to describe and make available to the public methods acceptable to the NRC staff of implementing specific parts of the Commission's regulations and, in some cases, to delineate techniques used by the staff in evaluating specific problems or postulated accidents and to provide guidance to applicants concerning certain of the information needed by the staff in its review of applications for permits and licenses.

Regulatory Guide 1.31, Revision 2, "Control of Ferrite Content in Stainless Steel Weld Metal," describes a method acceptable to the NRC staff for implementing requirements with regard to the control of welding in fabricating and joining austenitic stainless steel components and systems for light-water-cooled reactors. Public comments on earlier versions of this guide expressed concern over the burden imposed by the testing needed to follow the guide's recommendations. This revision incorporates recommendations of the Joint ASME/ANSI/NRC Task Group on Control of Stainless Steel Welding. This group studied alternative approaches to the control of the ferrite content in stainless steel weld material that would give an equivalent level of control to that in Revision 1 of Regulatory Guide 1.31.

Comments and suggestions in connection with (1) items for inclusion in guides currently being developed or (2) improvements in all published guides are encouraged at any time. Public comments on Regulatory Guide 1.31, Revision 2, will, however, be particularly useful in evaluating the need for an early revision if received by July 25, 1977.

Comments should be sent to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch.

Regulatory guides are available for inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C. Requests for single copies of issued guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Document Control. Telephone requests cannot be accommodated. Regulatory guides are not copyrighted, and Commission approval is not required to reproduce them.

(5 U.S.C. 552(a).)

Dated at Rockville, Maryland, this 18th day of May 1977.

For the Nuclear Regulatory Commission.

ROBERT B. MINOGUE,
Director, Office of Standards Development.

[FR Doc.77-15127 Filed 5-27-77;8:45 am]

REGULATORY GUIDE

Issuance and Availability

The Nuclear Regulatory Commission has issued a new guide in its Regulatory Guide Series. This series has been developed to describe and make available to the public methods acceptable to the NRC staff of implementing specific parts of the Commission's regulations and, in some cases, to delineate techniques used by the staff in evaluating specific problems or postulated accidents and to provide guidance to applicants concerning certain of the information needed by the staff in its review of applications for permits and licenses.

Regulatory Guide 3.35, "Assumptions Used for Evaluating the Potential Radiological Consequences of Accidental Nuclear Criticality in a Plutonium Processing and Fuel Fabrication Plant," lists assumptions used by the NRC staff to evaluate the magnitude and radiological consequences of a criticality accident in a plutonium processing and fuel fabrication plant. These assumptions are based on previous accident experience, engineering judgment, and on the analysis of applicable experimental results from safety research programs.

Comments and suggestions in connection with (1) items for inclusion in guides currently being developed or (2) improvements in all published guides are encouraged at any time. Public comments on Regulatory Guide 3.35 will, however, be particularly useful in evaluating the need for an early revision if received by July 28, 1977.

Comments should be sent to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch.

Regulatory guides are available for inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C. Requests for single copies of issued guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Document Control. Telephone requests cannot be accommodated. Regulatory guides are not copyrighted, and Commission approval is not required to reproduce them.

(5 U.S.C. 552(a).)

Dated at Rockville, Maryland, this 23rd day of May 1977.

For the Nuclear Regulatory Commission.

ROBERT B. MINOGUE,
Director, Office of Standards Development.

[FR Doc.77-15131 Filed 5-27-77;8:45 am]

OFFICE OF MANAGEMENT AND BUDGET

CLEARANCE OF REPORTS

List of Requests

The following is a list of requests for clearance of reports intended for use in collecting information from the public received by the Office of Management and Budget on May 24, 1977 (44 U.S.C. 3509). The purpose of publishing this list in the FEDERAL REGISTER is to inform the public.

The list includes the title of each request received; the name of the agency sponsoring the proposed collection of information; the agency form number(s), if applicable; the frequency with which the information is proposed to be collected; the name of the reviewer or reviewing division within OMB, and an indication of who will be the respondents to the proposed collection.

Requests for extension which appear to raise no significant issues are to be approved after brief notice thru this release.

Further information about the items on this daily list may be obtained from the Clearance Office, Office of Management and Budget, Washington, D.C. 20503 (202-395-4529), or from the reviewer listed.

NEW FORMS

ENVIRONMENTAL PROTECTION AGENCY

Study of Human Tissue Heavy Metal Burden in Nonferrous Smelter Communities, single time, households and individuals in seven smelter communities, Ellett, C. A., Richard Eisinger, 395-5867.

DEPARTMENT OF COMMERCE

Bureau of Census:

Prelist Address Register—1980 Census Dress Rehearsal (Part of 1980 Decennial Census), D-101A(X), D-101B(X), single time, households not covered by commercial mailing list, Maria Gonzalez, 395-6132.

Quality Control Listing and Matching Record (1980 Census Dress Rehearsal—Part of 1980 Decennial Census) D-109X, single time, sample of households in prelist area of dress rehearsal, Maria Gonzalez, 395-6132.

NEW FORMS

DEPARTMENT OF COMMERCE

Bureau of Census:

Post Enumeration Survey (A), Census Day Households Roster—1977 Census of Oakland, Calif., DH-810, single time, households in Oakland, Calif., Maria Gonzalez, 395-6132.

Post Enumeration Survey (B), Current Households Roster—1977 Census of Oakland, Calif., DH-811, single time households in Oakland, Calif., Maria Gonzalez, 395-6132.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

National Institutes of Health, Evaluation of Minnesota Comprehensive Epilepsy Program, impact, single time, providers of services to people with epilepsy, human resources division, Richard Eisinger, 395-3532.

REVISIONS

ENVIRONMENTAL PROTECTION AGENCY

Application for Federal Assistance State and Local Construction Grants, EPA 5700-32, on occasion, municipalities applying for loan guarantees, Lowry, R. L., 395-3772.

EXTENSIONS

FEDERAL HOME LOAN BANK BOARD

Annual Report (Savings & Loan Holding Companies), H-B11, on occasion, savings and loan holding companies, Gaylord Worden, 395-4730.

EXTENSIONS

FEDERAL HOME LOAN BANK BOARD

Current Report of Savings and Loan Holding Co., H-(B)12, on occasion, savings and loan holding companies, Gaylord Worden, 395-4730.

DEPARTMENT OF DEFENSE

Departmental and Other Contractors Request For Progress Payment, DD 1195, on occasion, DOD contractors, Marsha Traynham, 395-4529.

PHILLIP D. LARSEN,
Budget and Management Officer.

[FR Doc.77-15484 Filed 5-27-77;8:45 am]

DEPARTMENT OF STATE

[Public Notice CM-7/71]

UNITED STATES ADVISORY COMMISSION ON INTERNATIONAL EDUCATIONAL AND CULTURAL AFFAIRS

Meeting

The United States Advisory Commission on International Educational and Cultural Affairs will meet in open session on Monday, June 13, 1977, in Room 1410 of the State Department. The meeting will run from 9:30 a.m. until 1 p.m.

There will be two items on the agenda, in addition to any old or new business which any Commission member wishes to raise.

1. Final approval of the Commission's 13th Annual Report.
2. Final approval of Commission recommendation on a Western Hemisphere Center.

Members of the general public may attend and participate in the discussion subject to the instructions of the Chairman. They will be accommodated up to the seating capacity of the room.

For purposes of fulfilling building security requirements, anyone wishing to attend the meeting must advise the Staff Director of the Commission by close of business Monday, June 6, of his intention to attend. He may be reached by telephone at (202) 632-2764.

Dated: May 18, 1977.

W. E. WELD, Jr.,
Staff Director, Commission Secretariat.

[FR Doc.77-15327 Filed 5-27-77;8:45 am]

DEPARTMENT OF TRANSPORTATION

ENGINEERING AND MANUFACTURING DISTRICT OFFICE

Notice of Change of Location

Notice is hereby given that on or about July 1, 1977, the Engineering and Manufacturing District Office at Tulsa, Oklahoma, will be moved to Oklahoma City, Oklahoma. There is no change in the District Office boundaries or functional responsibilities to the aviation public. This move does not constitute a change to the FAA Organization Statement.

Issued in Fort Worth, Texas, on April 25, 1977.

HENRY L. NEWMAN,
Director, Southwest Region.

[FR Doc.77-15298 Filed 5-27-77;8:45 am]

Federal Aviation Administration

FLIGHT STANDARDS GENERAL AVIATION DISTRICT OFFICE

Notice of Rescindment

Notice is hereby given that establishment of a Flight Standards District Office at Opa Locka, Florida, as published in the FEDERAL REGISTER on March 3, 1977, is rescinded. General aviation services with which the public is concerned will continue to be provided by the General Aviation District Office. Communications should be addressed as follows:

Chief, General Aviation District Office, Federal Aviation Administration, Building 121, Opa Locka Airport, Opa Locka, Florida 33054.

(Sec. 313(a), 72 Stat. 752 (49 U.S.C. 1354).)

Issued in East Point, Georgia, on May 17, 1977.

PHILLIP M. SWATEK,
Director, Southern Region.

[FR Doc.77-15297 Filed 5-27-77;8:45 am]

National Highway Traffic Safety Administration

[Docket No. IP77-8; Notice 1]

FORD MOTOR CO.

Petition for Exemption From Notice and Recall for Inconsequential Noncompliance

Ford Motor Company of Dearborn, Michigan, has petitioned to be exempted from the notification and remedy requirements of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1381 et seq.) for an apparent noncompliance with 49 CFR 571.108 Motor Vehicle Safety Standard No. 108, Lamps, Reflective Devices and Associated Equipment, on the basis that it is inconsequential as it relates to motor vehicle safety.

The apparent nonconformance was discovered by NHTSA in the course of a compliance investigation (File CIR 1123). It is the failure of lenses on the rear side marker lamps of 1972-74 model Capri passenger cars to meet Federal requirements for the color red. These requirements are those set in SAE Standard J578, "Color Specification for Electric Signal Lighting Devices," April 1965. Colors are expressed by chromaticity coordinates according to the CIE (1931) standard colormetric system. Color values may be determined visually by comparing the light from the device being judged with the light emitted from a standard source. They may also be computed from the spectral energy distribution curve (the spectraphotometric method). For red, the y coordinate shall not be greater than 0.33 and the z coordinate shall not be greater than 0.008. NHTSA test samples of the lamps have failed both methods, with an average of

0.344 for the y coordinates and 0.023 for the z. This means that the z coordinate is three times the maximum permitted value of the red requirement, placing the coordinate toward the pink portion of the chromaticity diagram. To the naked eye the lamp is distinctly paler and pinker than one that meets the color requirements. There are approximately 294,000 Capris which have been imported and sold during the time that the lamp was manufactured. It is presently unknown how many lamps have been manufactured for the replacement market.

Ford's arguments that this apparent noncompliance is inconsequential may be summarized as follows. The lamp itself otherwise meets all requirements of Standard No. 108. Further even though the color deviates from the prescribed red, it in no way could be mistaken for the amber-colored front side marker lamp. There is also a de minimis exposure to oncoming motorists from the limited number of situations in which one will encounter a Capri, or any vehicle, at right angles. In virtually all situations, argues the company, direction of travel of the Capri is determined by the presence and relative motion of lights other than the side marker lamps long before situations arise in which sole reliance on those lamps could be placed.

This notice of receipt of a petition is published under section 157 of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1417) and does not represent any agency decision or other exercise of judgment concerning the merits of the petition.

Interested persons are invited to submit written data, views and arguments on the petition of Ford Motor Company described above. Comments should refer to the docket number and be submitted to: Docket Section, National Highway Traffic Safety Administration, Room 5108, 400 Seventh Street, S.W., Washington, D.C. 20590. It is requested but not required that five copies be submitted.

All comments received before the close of business on the comment closing date indicated below will be considered. The application and supporting materials and all comments received after the closing date will also be filed and will be considered to the extent possible. When the petition is granted or denied, notice will be published in the FEDERAL REGISTER pursuant to the authority indicated below.

Comment closing date: July 15, 1977.

(Sec. 102, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1417); delegations of authority at 49 CFR 1.50 and 49 CFR 501.8)

Issued on May 23, 1977.

ROBERT L. CARTER,
Associate Administrator,
Motor Vehicle Programs.

[FR Doc.77-15112 Filed 5-27-77;8:45 am]

STUART FAUNCE, Ph.D.

Grant of Petition to Commence Defect Proceeding

This notice announces the granting of a petition by Stuart Faunce, Ph.D., of Fanwood, N.J., that the National Highway Traffic Safety Administration commence a proceeding to determine whether to issue an order pursuant to Section 152(b) of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1391 et seq.). Such an order, if issued, would require Ford Motor Company to initiate a notification and remedy campaign to correct a safety-related defect.

The petition alleges that 1972 Capri passenger cars, manufactured by Ford Motor Company and sold through its Lincoln-Mercury dealers, may incorporate improperly designed and manufactured stabilizer bars in a front suspension system, and that accordingly such vehicles contain a defect which relates to motor vehicle safety.

The file number assigned to the petition is P7-004.

(Sec. 102, Pub. L. 93-492; 88 Stat. 1470 (15 U.S.C. 1417); delegations of authority at 49 CFR 1.50 and 501.8)

Issued on May 23, 1977.

ROBERT L. CARTER,
Associate Administrator,
Motor Vehicle Programs.

[FR Doc.77-15138 Filed 5-27-77;8:45 am]

DEPARTMENT OF THE TREASURY

Office of the Secretary

PRESSURE SENSITIVE PLASTIC TAPE MEASURING OVER ONE AND THREE-EIGHTS INCHES IN WIDTH AND NOT EXCEEDING FOUR MILS IN THICKNESS FROM ITALY

Antidumping Determination of Sales at Less Than Fair Value

AGENCY: United States Treasury Department.

ACTION: Determination of sales at less than fair value.

SUMMARY: This notice is to advise the public that an antidumping investigation has resulted in a determination that pressure sensitive plastic tape measuring over one and three-eights inches in width and not exceeding four mils in thickness from Italy is being sold at less than fair value under the Antidumping Act. (Sales at less than fair value generally occur when the price of merchandise for exportation to the United States is less than the price of such or similar merchandise sold in the home market or to third countries.) This case is being referred to the United States International Trade Commission for a determination concerning possible injury to an industry in the United States.

EFFECTIVE DATE: May 31, 1977.

FOR FURTHER INFORMATION CONTACT:

David R. Chapman, Operations Officer, Duty Assessment Division, United States Customs Service, 1301 Constitution Avenue NW., Washington, D.C. 20229, telephone 202-566-5492.

SUPPLEMENTARY INFORMATION: Information was received in proper form on April 8, 1976, from the Minnesota Mining and Manufacturing Company of St. Paul, Minnesota, alleging that pressure sensitive plastic tape from Italy was being sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160 et seq.) (referred to in this notice as "the Act"). This information was the subject of an "Antidumping Proceeding Notice" which was published in the FEDERAL REGISTER of May 14, 1976 (41 FR 19990). The "Antidumping Proceeding Notice" indicated that there was evidence on record concerning injury to or likelihood of injury to or prevention of establishment of an industry in the United States.

The Secretary concluded that a tentative determination could not reasonably be made within the usual six-month period. The investigatory period in this case was therefore extended to no more than 9 months, and a "Notice of Extension of Investigatory Period" to that effect was published in the FEDERAL REGISTER of November 17, 1976 (41 FR 50748).

A "Withholding of Appraisement Notice" issued by the Secretary of the Treasury was published in the FEDERAL REGISTER of February 18, 1977 (41 FR 10086).

DETERMINATION OF SALES AT LESS THAN FAIR VALUE

I hereby determine that for the reasons stated below, pressure sensitive plastic tape measuring over one and three-eighths inches in width and not exceeding four mils in thickness, from Italy other than that produced and sold by Plasturopa is being, or is likely to be, sold at less than fair value within the meaning of section 201(a) of the Act (19 U.S.C. 160(a)).

STATEMENT OF REASONS ON WHICH THIS DETERMINATION IS BASED

The reasons and bases for the above determination are as follows:

(a) *Scope of the investigation.* It appears that 92 percent of imports of the subject merchandise from Italy was manufactured by four companies: Manuli Autoadesivi S.p.A., Milan, Italy (Manuli), Boston S.p.A., Milan, Italy (Boston), Comet S.A.R.A. S.p.A., Como, Italy (Comet), and Plasturopa-SIPA S.a.S., Florence, Italy (Plasturopa). Therefore, the investigation was limited to these four manufacturers.

(b) *Basis of comparison.* For the purpose of considering whether the merchandise in question is being, or is likely to be, sold at less than fair value within the meaning of the Act, the proper basis of comparison is between purchase price and the home market price of such or similar merchandise on sales by Boston, Plasturopa and Comet and between purchase price or exporter's sales price and the home market price of such or similar merchandise on sales by Manuli. Purchase price, as defined in section 203 of the Act (19 U.S.C. 162), was used in the cases of Boston, Plasturopa and Comet since all export sales by those three companies appear to be made to non-related purchasers in the United States. Purchase price was also used for certain sales by Manuli where the merchandise was purchased by a non-related customer prior to the exportation from Italy. Exporter's sales price as defined in section 204 of the Act (19 U.S.C. 163), was used for those sales in which the related importer acted as the seller of the merchandise.

Home market price, as defined in section 153.3, Customs Regulations (19 CFR 153.3), was used since such or similar merchandise was sold in the home market in sufficient quantities, at prices equal to or above the cost of production, to provide a basis of comparison for fair value purposes.

In accordance with section 153.31(b), Customs Regulations (19 CFR 153.31 (b)), pricing and cost of production information was obtained concerning export and appropriate home market sales of pressure sensitive plastic tape from Italy during the period December 1, 1975, through June 30, 1976.

(c) *Purchase price.* For the purpose of this determination of sales at less than fair value, purchase price has been calculated on the basis of the c.i.f. price to U.S. customers. Deductions have been made for ocean freight and shipping expenses, Italian inland freight, insurance and brokerage costs, as appropriate.

(d) *Exporter's sales price.* For the purpose of this determination of sales at less than fair value, exporter's sales price has been calculated on the basis of the price to the unrelated United States customers, with deductions for transportation, insurance, United States customs duties, handling costs, and selling expenses.

(e) *Home market price.* For the purpose of this determination of sales at less than fair value, adjustments have been made on the following bases. The home market price has been calculated on the basis of the delivered price in the home market to unrelated purchasers, with adjustments for differences in merchandise sold to the two markets, as appropriate.

In the case of Boston, adjustment was made for differences in inland shipping expenses, cash discounts, commissions and packing costs between the two markets.

In the case of Comet, adjustment was made for differences in inland freight, cash discount and commissions between the two markets.

In the case of Plasturopa, adjustment was made for differences in delivery expenses and commissions between the two markets.

In the case of Manuli, adjustment was made for differences in cash discounts, inland freight expenses and commissions between the two markets in all cases. In accordance with Section 153.10(b), Customs Regulations (19 CFR 143.10(b)), adjustment was made for actual selling expenses incurred in the some market up to the amount of selling expenses incurred in the United States market, in those cases where home market price was compared to sales made to the United States on which exporter's sales price applied.

The issue has been raised in what circumstances home market sales at prices below the cost of production might be included with other home market sales at prices equal to or greater than the cost of production under Section 205 (b). Section 205(b) of the Act requires that if the Secretary determines that home market sales made at less than the cost of production have been made over an extended period of time and in substantial quantities, and are not at prices which permit recovery of all costs within a reasonable period of time in the normal course of trade, such sales shall be disregarded in the determination of foreign market value and thereby the fair value. In this case, it has been determined that although some home market sales by Manuli occurred at prices less than the cost of production, these sales occurred in less than substantial quantities within the meaning of Section 205(b) of the Act, and therefore have not been disregarded in computing home market price. It has further been determined that home market sales at prices less than the cost of production, by Plasturopa, Comet, and Boston have occurred in substantial quantities over an extended period of time and at prices not permitting recovery of all costs within a reasonable period of time in the normal course of trade. These sales have therefore been disregarded in computing home market price for these manufacturers.

(f) *Result of fair value comparisons.* Using the above criteria, purchase price and/or exporter's sales price was found to be lower than the home market price of such or similar merchandise. Comparisons were made on approximately 76 percent of the merchandise sold to the United States by manufacturers during the investigative period. Margins were found ranging from 0 to 17 percent for sales made by Boston on 71.5 percent of the sales compared, ranging from 2 to 18 percent for sales made by Comet on 77.3 percent of the sales compared, and from 1 to 26 percent for sales made by Manuli on 80 percent of the sales compared. No margins were found on sales by Plasturopa.

The Secretary has provided an opportunity to known interested persons to present written and oral views pursuant to § 153.40, Customs Regulations (19 CFR 153.40).

The United States International Trade Commission is being advised of this determination.

This determination is being published pursuant to section 201(d) of the Act (19 U.S.C. 160(d)).

Dated: May 20, 1977.

HENRY C. STOCKELL, Jr.,
Acting General Counsel.

[FR Doc.77-15187 Filed 5-27-77;8:45 am]

INTERSTATE COMMERCE COMMISSION

[Notice No. 400]

ASSIGNMENT OF HEARINGS

MAY 25, 1977.

Cases assigned for hearing, postponement, cancellation or oral argument appear below and will be published only once. This list contains prospective assignments only and does not include cases previously assigned hearing dates. The hearings will be on the issues as presently reflected in the Official Docket of the Commission. An attempt will be made to publish notices of cancellation of hearings as promptly as possible, but interested parties should take appropriate steps to insure that they are notified of cancellation or postponements of hearings in which they are interested.

MC 111231 (Sub-203), Jones Truck Lines, Inc., now assigned July 21, 1977 at Chicago, Illinois, hearing canceled and the application is dismissed.

MC 138420 (Sub-14), Chizek Elevator & Transport, Inc., now being assigned July 21, 1977 (2 days) at Chicago, Illinois, in a hearing room to be later designated.

MC 110563 Sub 187, Coldway Food Express, Inc., Extension Denver Meats now being assigned June 21, 1977 (9 days) and July 19, 1977 (9 days) at Denver, Colorado and will be held at the Court of Appeals, Division Two, US Courthouse, 1961 Stout Street and at the Tax Court, Room 587, US Federal Building and Courthouse, 1961 Stout Street respectively.

AB 52 Sub 7, Atchison, Topeka and Santa Fe Railway Company Abandonment Between Cushing and Shawnee in Payne, Lincoln and Pottawatomie Counties, Oklahoma now assigned June 1, 1977 at Shawnee, Oklahoma is cancelled.

MC 134922 Sub Nos. 214, 210, 217, 201, and 225, B. J. McAdams, Inc., and MC 19157 Sub Nos. 24, 27, 28 and 32, McCormack's Highway Transportation, Inc. now being assigned June 27, 1977 for prehearing conference at the Office of the Interstate Commerce Commission in Washington, D.C.

MC 128007 (Sub-No. 91), Hofer, Inc., now being assigned July 26, 1977, at Jefferson City, Mo. in a hearing room to be later designated.

ROBERT L. OSWALD,
Secretary.

[FR Doc.77-15375 Filed 5-27-77;8:45 am]

[Notice No. 171]

MOTOR CARRIER BOARD TRANSFER PROCEEDINGS

MAY 31, 1977.

Synopses of orders entered by the Motor Carrier Board of the Commission pursuant to sections 212(b), 206(a), 211,

312(b), and 410(g) of the Interstate Commerce Act, and rules and regulations prescribed thereunder (49 CFR Part 1132), appear below:

Each application (except as otherwise specifically noted) filed after March 27, 1972, contains a statement by applicants that there will be no significant effect on the quality of the human environment resulting from approval of the application. As provided in the Commission's Special Rules of Practice any interested person may file a petition seeking reconsideration of the following numbered proceedings on or before June 20, 1977. Pursuant to Section 17(8) of the Interstate Commerce Act, the filing of such a petition will postpone the effective date of the order in that proceeding pending its disposition. The matters relied upon by petitioners must be specified in their petitions with particularity.

No. MC-FC-76451. By order entered March 7, 1977, (corrected order served April 4, 1977), the Motor Carrier Board approved the transfer to Mercer Water & Sewer Transportation Co., Fort Worth, Tex., of the operating rights set forth in Certificate No. MC-106407 (Sub-No. 21) issued August 9, 1968 to T. E. Mercer Trucking Co., Fort Worth, Tex. authorizing the transportation of: Machinery, equipment, materials, and supplies used in connection with the construction, operation, repair, servicing, maintenance, and dismantling of pipelines for the transportation of water and sewage, including the stringing and picking up of pipe, with restrictions between points in the United States. Clayte Binion, 1108 Continental Life Bldg., Fort Worth, Texas 76102 attorney for applicants.

ROBERT L. OSWALD,
Secretary.

[FR Doc.77-15377 Filed 5-27-77;8:45 am]

[Notice No. 172]

MOTOR CARRIER BOARD TRANSFER PROCEEDINGS

The following publications include motor carrier, water carrier, broker, and freight forwarder transfer applications filed under section 212(b), 206(a), 211, 312(b), and 410(g) of the Interstate Commerce Act.

Each application (except as otherwise specifically noted) contains a statement by applicants that there will be no significant effect on the quality of the human environment resulting from approval of the application.

Protests against approval of the application, which may include a request for oral hearing, must be filed with the Commission on or before June 30, 1977. Failure seasonably to file a protest will be construed as a waiver of opposition and participation in the proceeding. A protest must be served upon applicants' representative(s), or applicants (if no such representative is named), and the protestant must certify that such service has been made.

Unless otherwise specified, the signed original and six copies of the protest shall be filed with the Commission. All protests must specify with particularity the factual basis, and the section of the Act, or the applicable rule governing the proposed transfer which protestant believes would preclude approval of the application. If the protest contains a request for oral hearing, the request shall be supported by an explanation as to why the evidence sought to be presented cannot reasonably be submitted through the use of affidavits.

The operating rights set forth below are in synopses form, but are deemed sufficient to place interested persons on notice of the proposed transfer.

No. MC-FC-77020, filed May 16, 1977. Transferee: SIMPSONVILLE WRECKER SERVICE, INC., 4507 Illinois Ave., Louisville, Ky. 40213. Transferor: Joe Moss, d.b.a. Simpsonville Garage Wrecker Service, 4507 Illinois Ave., Louisville, Ky. 40213. Applicant's representative: Robert M. Pearce, P.O. Box 1111, Bowling Green, Ky. 42101. Authority sought for purchase by transferee of the operating rights of transferor, as set forth in Certificate Nos. MC 127122, MC 127122 (Sub-No. 1), MC 127122 (Sub-No. 2), MC 127122 (Sub-No. 3), and MC 127122 (Sub-No. 4), issued June 8, 1966, September 10, 1969, March 13, 1970, May 5, 1970, and May 27, 1971, respectively, as follows: *Wrecked, disabled, and repossessed motor vehicles*, including trailers designed to be drawn by passengers automobiles, and replacement vehicles and parts therefor, by use of wrecker equipment only, between points in Kentucky, and points in Bartholemew, Clark, Crawford, Daviess, Dearborn, Dubois, Floyd, Greene, Harrison, Jackson, Jefferson, Jennings, Lawrence, Martin, Monroe, Ohio, Orange, Perry, Pike, Ripley, Scott, Spencer, Switzerland, Warrick, and Washington Counties, Ind., on the one hand, and, on the other, points in the United States, except Hawaii; between points in Kentucky, on the one hand, and, on the other, points in Bartholemew, Clark, Crawford, Daviess, Dearborn, Dubois, Floyd, Greene, Harrison, Jackson, Jefferson, Jennings, Lawrence, Martin, Monroe, Ohio, Orange, Perry, Pike, Ripley, Scott, Spencer, Switzerland, Warrick, and Washington Counties, Ind.; *Wrecked, disabled, or repossessed motor vehicles, wrecked or disabled trailers* designed to be drawn by passenger automobiles, and replacement vehicles and parts therefor, by use of wrecker equipment only.

Between points in that part of Kentucky on and west of U.S. Highway 25 and points in Alabama, Arkansas, Florida, Georgia, Illinois, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; *Wrecked, disabled, and repossessed motor vehicles, and replacement vehicles and parts thereof*, by use of wrecker equipment only in connection with wrecked, disabled, and repossessed motor vehicles, between points in that part of Kentucky on and west of U.S. Highway 23 and points in Colorado, Illinois, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, and Wyoming; *Wrecked, disabled, and repossessed motor vehicles, and replacement vehicles and parts therefor*, by use of wrecker equipment only, between points in that part of Kentucky on and west of U.S. Highway 23 and points in Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming; and *Wrecked and disabled motor vehicles, and replacement vehicle and parts therefor* by use of wrecker equipment only, between points in that part of Kentucky on and west of U.S. Highway 23, and points in Connecticut, Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and the District of Columbia. The transaction also includes the transfer of all of transferor's letter E notices, E-2, E-3, E-4, E-5, and E-6 all filed on June 3, 1974, published October 3, 1974, September 23, 1974, September 23, 1974, September 23, 1974, and September 24, 1974, respectviely, and effective October 18, 1974, October 8, 1974, October 8, 1974, October 8, 1974, and October 9, 1974, respectively; E-7 filed April 24, 1975, published August 19, 1975, and effective September 3, 1975; and E-8, E-9, E-10, E-11, E-12, and E-13 filed April 24, 1975, published August 20, 1975, and effective September 4, 1975. Transferee presently holds no authority from this Commission. Application has not been filed for temporary authority under Section 210a(b).

No. MC-FC-77108, filed May 3, 1977. Transferee: CENTRAL TRANSIT LINES, INC., 84 Ward Street, Patterson, N.J. Transferor: Colonial Coach Corp., 17 Franklin Turnpike, Mahwah, N.J. Attorney for transferee: Ronald I. Shapss, Esq., 450 7th Ave., New York, N.Y. 10001. Attorney for transferor: Samuel B. Zinder, 98 Cutter Mill Rd., Great Neck, N.Y. 11021. Authority sought for purchase by transferee of a portion of the operating rights of transferor, as set forth in Certificate No. MC-39491, issued April 1, 1969, as follows: *Passengers and their baggage, and express and newspapers*, in the same vehicle with passengers, over specified regular routes, between junction U.S. Highway 13 and Pennsylvania Turnpike (northeast of Bristol, Pa.) and the Borough of Manhattan, New York City, N.Y., serving no intermediate points. Restriction: The operations are restricted against service or transportation between Burlington, N.J., on the one hand, and, on the other, the Borough of Manhattan, New York City, N.Y. The above described authority to transport passengers was issued pursuant to an application filed on or before January 1, 1967, and therefore incidental charter

operations in interstate or foreign commerce may be conducted under rules and regulations prescribed by the Commission pursuant to section 208(c) of the Interstate Commerce Act, as amended November 10, 1966. Transferee presently holds no authority from this Commission Application has not been filed for temporary authority under Section 210a(b).

No. MC-FC-77124, filed May 12, 1977. Transferee: HOAGY WRECKER SERVICE, INC., 5418 South Calhoun St., Fort Wayne, Ind. 46807. Transferor: James E. Hoagland, doing business as Hoagy's Wrecker Service, 5418 South Calhoun St., Fort Wayne, Ind. 46807. Applicants' representative: Harry J. Harman, Attorney at Law, 700 Harrison Bldg., 143 West Market St., Indianapolis, Ind. 46204. Authority sought for purchase by transferee of the operating rights of transferor, as set forth in Certificate No. MC 133157, issued March 3, 1975, as follows: *Used motor vehicles*, to be used as replacements for wrecked or disabled motor vehicles, in truckaway service, and *motor vehicle parts, accessories, supplies, and materials*, for use in connection with repairing and reconditioning of disabled or wrecked motor vehicles, over irregular routes, from points in Indiana, to points in Pennsylvania, Ohio, Michigan, Illinois, Wisconsin, Kentucky, and Tennessee; and *wrecked or disabled motor vehicles*, from points in Pennsylvania, Ohio, Michigan, Illinois, Wisconsin, Kentucky, and Tennessee, to points in Indiana. Restriction: The authority granted herein is restricted to the transportation of traffic by wrecker equipment only. Transferee presently holds no authority from this Commission. Application has not been filed for temporary authority under Section 210a(b).

No. MC-77125, filed May 12, 1977. Transferee: DUFFY AND HUGHES, INC., 15 North 59th St., Philadelphia, Pa. 19139. Transferor: Joseph F. Hughes, an individual doing business as John M. Duffy and P. Hughes & Sons, 15 North 59th St., Philadelphia, Pa. 19139. Applicants' representative: Robert G. Bellwoar, Attorney at Law, 2901 P.S.F.S. Bldg., 12th and Market Sts., Philadelphia, Pa. 19107. Authority sought for purchase by transferee of the operating rights of transferor, as set forth in Certificate No. MC-7587, issued March 8, 1971, as follows: *Household goods and office furniture*, over irregular routes, between Philadelphia, Pa., on the one hand, and, on the other, New York, N.Y., and points in Delaware and New Jersey. Also *musical instruments, piano stools, organ accessories, radio, and television sets*, uncrated, over irregular routes, between Philadelphia, Pa., on the one hand, and, on the other, points in New Jersey, and Delaware, and *pianos and organs and parts and accessories* of pianos and organs, over irregular routes, between points in Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa., on the one hand, and, on the other, points in Delaware, New Jersey, and New York, N.Y. Transferee presently holds no authority from this Commission. Application has not been filed for temporary authority under Section 210a(b).

No. MC-FC-77126, filed May 12, 1977. Transferee: OTIS CAREY, doing business as Wykagyl Express, 172 Morris St., New Rochelle, N.Y. 10801. Transferor: Robert B. Williams, doing business as Wykagyl Express, 79 Potter Ave., New Rochelle, N.Y. 10801. Applicant's representative: Edward M. Alfano, Attorney at Law, 550 Mamaroneck Ave., Harrison, N.Y. 10528. Authority sought for purchase by transferee of the operating rights of transferor set forth in Certificate No. MC 105328, issued July 28, 1972, as follows: *Household goods*, as defined by the Commission, between points in Westchester County, N. Y., on the one hand, and, on the other, points in Connecticut, Massachusetts, New Jersey, New York and Pennsylvania. Transferee presently holds no authority from this Commission. Application has not been filed for temporary authority under Section 210a(b).

No. MC-FC-77127, filed May 16, 1977. Transferee: MT. EPHRAIM STORAGE CO., a corporation, 101 Washington Ave., Gloucester City, N.J. 08030. Transferor: Joseph F. Hughes, doing business as Mt. Ephraim Storage, 101 Washington Ave., Gloucester City, N.J. 08030. Applicants' representative: Robert G. Bellwoar, Attorney at Law, 2901 P.S.F.S. Bldg., 12 S. 12th St., Philadelphia, Pa. 19107. Authority sought for purchase by transferee of the operating rights set forth in Certificates Nos. MC 65398 (Sub-No. 1), MC 65398 (Sub-No. 2), and MC 65398 (Sub-No. 3), issued January 18, 1966, January 18, 1966, and February 27, 1973, respectively, to Miller Brothers Moving & Storage, Inc., Riverside, N.J., and acquired by transferor herein pursuant to No. MC-FC-75202, approved June 17, 1974, and consummated August 30, 1974, as follows: *Household goods*, as defined by the Commission, between Philadelphia, Pa., and points in Pennsylvania within 25 miles of Philadelphia, on the one hand, and, on the other, points in New York, New Jersey, and Delaware; between points in New Jersey, on the one hand, and, on the other, points in Connecticut, Massachusetts, Rhode Island, Maryland, Delaware, Pennsylvania, and the District of Columbia; and between Philadelphia, Pa., and points within 25 miles thereof, on the one hand, and, on the other, points in New York, New Jersey, and Delaware. Transferee presently holds no authority from this Commission. Application has not been filed for temporary authority under section 210a(b).

ROBERT L. OSWALD,
Secretary.

[FR Doc.77-15378 Filed 5-27-77;8:45 am]

[Notice No. 67]

MOTOR CARRIER TEMPORARY AUTHORITY APPLICATIONS

MAY 24, 1977.

The following are notices of filing of applications for temporary authority under section 210a(a) of the Interstate Commerce Act provided for under the provisions of 49 CFR 1131.3. These rules provide that an original and six (6) copies of protests to an application may be filed with the field official named in the FEDERAL REGISTER publication no later than the 15th calendar day after the date the notice of the filing of the application is published in the FEDERAL REGISTER. One copy of the protest must be served on the applicant, or its authorized representative, if any, and the protestant must certify that such service has been made. The protest must identify the operating authority upon which it is predicated, specifying the "MC" docket and "Sub" number and quoting the particular portion of authority upon which it relies. Also, the protestant shall specify the service it can and will provide and the amount and type of equipment it will make available for use in connection with the service contemplated by the TA application. The weight accorded a protest shall be governed by the completeness and pertinence of the protestant's information.

Except as otherwise specifically noted, each applicant states that there will be no significant effect on the quality of the human environment resulting from approval of its application.

A copy of the application is on file, and can be examined at the Office of the Secretary, Interstate Commerce Commission, Washington, D.C., and also in the ICC Field Office to which protests are to be transmitted.

MOTOR CARRIERS OF PROPERTY

No. MC 1380 (Sub-No. 22TA), filed May 13, 1977. Applicant: COLONIAL MOTOR FREIGHT LINE, INC., Uwharris Rd., P.O. Box 5468, High Point, N.C. 27262. Applicant's representative: Max H. Towery (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Dimethyl terephthalate*, in bulk, in tank vehicles, from Kingsport, Tenn., to Mt. Vernon, Ind., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Tennessee Eastman Company, P.O. Box 511, Kingsport, Tenn. 37663. Send protests to: Archie W. Andres, District Supervisor, Bureau of Operations, Interstate Commerce Commission, P.O. Box 26896, Raleigh, N.C. 27611.

No. MC 36509 (Sub-No. 27TA), filed May 4, 1977. Applicant: LOOMIS ARMORED CAR SERVICE, INC., 55 Battery Street, Seattle, Wash. 98121. Applicant's representative: Robert C. Knokle (same address as applicant). Authority sought to operate as a *contract*

carrier, by motor vehicle, over irregular routes, transporting: *Silver Bullion* between Owyhee County, Idaho, on the one hand, and, on the other, Portland, Oreg., under a continuing contract or contracts with Earth Resources Co., DeLamar Silver Mine, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Earth Resources Co., DeLamar Silver Mine, P.O. Box 52, Jordan Valley, Oreg. 97910. Send protests to: District Supervisor Claud W. Reeves, 211 Main Suite 500, San Francisco, Calif. 94105.

No. MC 82079 (Sub-No. 48TA), filed April 21, 1977. Applicant: KELLER TRANSFER LINE, INC., 5635 Clay Avenue SW., Grand Rapids, Mich. 49508. Applicant's representative: Edward Malinzak, 900 Old Kent Building, Grand Rapids, Mich. 49503. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Food and food products, fresh and frozen products* which require protection from heat or cold in mechanically refrigerated vehicles (except commodities in bulk) from Chicago, Ill., and its commercial zone to points in Michigan on, north and west of a line beginning at the intersection of U.S.–23 and the Michigan/Ohio border on M–15 to Bay City, Mich., such traffic to be restricted to that originating at the origin point and destined to the destination points. Further restricted to traffic originating at the storage and warehouse facilities of U.S. cold Storage in Chicago, Ill., for 180 days. Supporting shipper: U.S. Cold Storage, 8424 W. 47th Street, P.O. Box 312, Lyons, Ill. 60534. Send protest to: C. R. Flemming, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 225 Federal Building, Lansing, Mich. 48933.

No. MC 103926 (Sub-No. 58TA), filed May 12, 1977. Applicant: W. T. MAYFIELD SONS TRUCKING CO., INC., P.O. Box 947, Mableton, Ga. 30059. Applicant's representative: Kim G. Meyer, 1600 First Federal Building, Atlanta, Ga. 30303. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Steel girders and beams* which because of size or weight require special equipment and handling and parts and accessories necessary, for the installation thereof, from Savannah, Ga., to points in Fulton County, Ga., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Visio International, Inc., 360 Post St., Room 602, San Francisco, Calif. 94108. Send Protests to: Sara K. Davis, Transportation Assistant, Bureau of Operations, Interstate Commerce Commission, 1252 W. Peachtree St. NW., Rm. 546, Atlanta, Ga. 30309.

No. MC 105172 (Sub-No. 8TA), filed May 4, 1977. Applicant: COVERED WAGON TRAIN, INC., P.O. Box 368, Upper Main St., Dansville, N.Y. 14437. Applicant's representative: S. Michael Richards, 44 North Ave., P.O. Box 225, Webster, N.Y. 14580. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: (1) *Petroleum and petroleum products* (except in bulk), and (2) *vehicle body sealer and sound deadener compound* (in containers), from New Kensington, Pa., to all points in Maine, Vermont, Massachusetts, New Hampshire, Rhode Island, and Connecticut, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Quaker State Oil Refining Corp., P.O. Box 989, Oil City, Pa. 16301. Send protests to: Morris H. Gross, District Supervisor, Interstate Commerce Commission, U.S. Courthouse & Federal Bldg., 100 S. Clinton St., Rm. 1259, Syracuse, N.Y. 13202.

No. MC 106195 (Sub-No. 14TA), filed May 5, 1977. Applicant: CLARK BROS. TRANSFER, INC., 800 North First Street, P.O. Box 388, Norfolk, Nebr. 68701. Applicant's representative: Michael J. Ogborn, P.O. Box 82028, Lincoln, Nebr. 68501. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Modular* homes and buildings when moving on shipper-owned trailers from Norfolk Homestead Housing, Inc., at or near Norfolk, Nebr., to points in Iowa, South Dakota and Wyoming, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Marion Wagner, Vice-President, Norfolk Homestead Housing, Inc., P.O. Box 648, Norfolk, Nebr. 68701. Send protests to: Carroll Russell, District Supervisor, Interstate Commerce Commission, Suite 620, 110 North 14th Street, Omaha, Nebr. 69102.

No. MC 107403 (Sub-No. 1014TA), filed May 5, 1977. Applicant: MATLACK, INC., Ten West Baltimore Avenue, Lansdowne, Pa. 19050. Applicant's representative: Martin C. Hynes, Jr. (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Vegetable oil*, in bulk, in tank vehicles, from Griffith, Ind., to Mountain Home, Ark., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Unitech Chemical Inc., Swift Specialty Chemicals, 115 W. Jackson Blvd., Chicago, Ill. 60604. Send protests to: Monica A. Blodgett, Transportation Assistant, Interstate Commerce Commission, 600 Arch Street, Rm. 3238, Philadelphia, Pa. 19106.

No. MC 107452 (Sub-No. 10TA), filed May 4, 1977. Applicant: R. D. BROWN, doing business as DAN BROWN TRUCKING, Greybull Heights, Greybull, Wyo. 82426. Applicant's representative: James B. Hovland, P.O. Box 1637, Fargo, N. Dak. 58102. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Bentonite clay*, in bulk, in pneumatic tank vehicle, from facilities of Wyo-Ben Products located at or near Lovell, Wyo., to points in Idaho, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Materials Supply Division, Wyo-Ben Products, 3044 Hesper Road, Billings, Mont. 59104. Send protests to: Paul A. Naughton, District Supervisor, Interstate Commerce Commission, 105 Federal Bldg. & U.S. Courthouse, 111 South Wolcott, Casper, Wyo. 82601.

No. MC 107515 (Sub-No. 1079TA), filed, May 12, 1977. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, 3901 Jonesboro Rd., S.E., Forest Park, Ga. 30050. Applicant's representative: Alan E. Serby, 3379 Peachtree Road N.E., Suite 375, Atlanta, Ga. 30326. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Unfrozen pizza crust*, in vehicles equipped with mechanical refrigeration, from the facilities of Food Products, Inc., at or near Greenville, S.C., to the facilities of Jeno's, Inc., at Duluth, Minn., and Superior, Wis., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Jeno's, Inc., 525 Lake Avenue South, Duluth, Minn. Send protests to: Sara K. Davis, Transportation Assistant, Bureau of Operations, Interstate Commerce Commission, 1252 W. Peachtree, St., NW., Room 546, Atlanta, Ga. 30309.

No. MC 111401 (Sub-No. 489TA), filed May 12, 1977. Applicant: GROENDYKE, INC., 50 Rock Island Blvd., P.O. Box 632, Enid, Okla. 73701. Applicant's representative: Victor R. Comstock (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Sodium bichromate solution*, in bulk, in tank vehicles, from Corpus Christi, Tex., to Telluride, Colo., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Van Waters & Rogers, P.O. Box 25187, 3301 Edmunds, S. E., Albuquerque, N. Mex. 87125. Send protests to: District Supervisor Joe Green, Rm 240, Old Post Office Bldg., 215 Northwest Third St., Oklahoma City, Okla. 73102.

No. MC 112582 (Sub-No. 46TA), filed May 5, 1977. Applicant: T. M. ZIMMERMAN COMPANY, P.O. Box 380, R.D. No. 2, Chambersburg, Pa. 17201. Applicant's representative: John M. Musselman, 410 N. Third Street, P.O. Box 1146, Harrisburg, Pa. 17108. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Foodstuffs*, in vehicles equipped with mechanical refrigeration from the plant-site and facilities of Stouffer's Frozen Foods (Stouffer Foods Corporation) located at Solon, Ohio, to Boston, Southboro, Watertown, Milton, Andover and Westboro, Mass., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Stouffer Food Corporation, 5750 Harper Rd., Solon, Ohio 44139. Send protests to: Robert P. Amerine, Dist. Supv., Bureau of

Operations, Interstate Commerce Commission, 278 Federal Building, P.O. Box 869, Harrisburg, Pa. 17108.

No. MC 113280 (Sub-No. 8TA), filed May 12, 1977. Applicant: BUCHMEIER & SONS, INC., 2988 Skyline Drive, P.O. Box 68, Hubertus, Wis. 53033. Applicant's representative: Richard C. Alexander, 710 N. Plankinton Avenue, Milwaukee, Wis. 53203. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Malt beverages*, in containers, from Cold Sping, Minn., to Mequon and Watertown, Wis., and from Dubuque, Iowa to Germantown, Wis., under a continuing contract or contracts with Schuppert Distributing Co., Inc., Suburban Beverages, Inc. and Better Brands Distributing Company, Inc., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Schuppert Distributing Co., Inc., 1224 Clark St., Watertown, Wis. 53094 (John R. Schuppert). Suburban Beverages, Inc., 11035 N. Industrial Drive, Meqyon, Wis. 53092 (Michael Moriarty). Better Brands Distributing Co., Inc., W162 N11819 Fond du Lac Avenue, Germantown, Wis. 53022 (William Martin). Send protests to: Gail Daughtery, Transportation Assistant, Interstate Commerce Commission, Bureau of Operations, U.S. Federal Building & Courthouse, 517 East Wisconsin Avenue, Room 619, Milwaukee, Wis. 53202.

No. MC 113784 (Sub-No. 62TA), filed May 4, 1977. Applicant: LAIDLAW TRANSPORT LIMITED, 65 Guise Street, Hamilton, Ontario, Canada L8L 4M1. Applicant's representative: Douglas Ross Gowland (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Fine pneumatic lime, in pneumatic tank vehicles*, for and on behalf of BeachviLime Limited, Ingersoll, Ontario, from ports of entry on the United States-Canada boundary line located on the Niagara and Detroit Rivers to points in the States of Ohio and Pennsylvania, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authortiy. Supporting shipper: BeachviLime Limited, P.O. Box 217, Ingersoll, Ontario, N5C 3K5. Send protests to: George M. Parker, District Supervisor, Interstate Commerce Commission, Bureau of Operations, 910 Federal Building, 111 West Huron Street, Buffalo, N.Y. 14202.

No. MC 117954 (Sub-No. 24TA), filed May 11, 1977. Applicant: H. L. Herrin, J., doing business as H. L. HERRIN TRUCKING CO., P.O. Box 1106, 3420 Airline Highway, Metairie, La. 70004. Applicant's representative: Lester C. Arvin, 814 Century Plaza Bldg., Wichita, Kans. 67202. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Frozen and dry processed potatoes*, from tre facilities of American Potato Co., at or near Plover, Wis., to points and places in Alabama, Arizona, Florida, Georgia, Louisiana, Minnesota, Tennessee and Texas, for 180 days. Supporting shipper(s): American Potatoe Co., Corporate Traffic Manager, 4600 Bank of America Center, San Francisco, Calif. 94104. Send protests to: District Supervisor Ray C. Armstrong, Jr., 9038 Federal Bldg., 701 Loyola Ave., New Orleans, La. 70113.

No. MC 118142 (Sub-No. 150TA), filed May 13, 1977. Applicant: M. BRUENGER & CO., INC., 6250 North Broadway, Wichita, Kans. 67219. Applicant's representative: Lester C. Arvin, 814 Century Plaza Building, Wichita, Kans. 67202. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Boxed beef and beef products*, from Muskogee, Okla., to the commercial zone of Los Angeles, Calif., and San Francisco, Calif., for 180 days. Supporting shipper(s): M and M Meat Company, 2000 Anderson Drive, Muskogee, Okla. 74401. Send protests to: M. E. Taylor, District Supervisor, Interstate Commerce Commission, 101 Litwin Building, Wichita, Kans. 67202.

No. MC 118468 (Sub-No. 49TA), filed May 5, 1977. Applicant: UMTHUN TRUCKING CO., 910 South Jackson Street, P.O. Box 166, Eagle Grove, Iowa 50533. Applicant's representative: William L. Fairbank, 1980 Financial Center, Des Moines, Iowa 50309. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Plastic pipe* from the plantsite of Johns-Manville Sales Corporation at or near Wilton, Iowa to points in Illinois, Indiana, Kansas, Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin, under contract with Johns-Mansville Sales Corporation, under a continuing contract or contracts with Johns-Manville Sales Corporation, for 180 days. Supporting shipper: Johns-Manville Sales Corporation, 2222 Kensington Court, Oak Brook, Ill. 60521. Send protests to: Herbert W. Allen, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 518 Federal Building, Des Moines, Iowa 50309.

No. MC 121664 (Sub-No. 19TA), filed May 3, 1977. Applicant: HORNADY BROTHERS TRUCK LINE, P.O. Box 846, Monroeville, Ala. 35460. Applicant's representative: Donald B. Sweeney, Jr., 603 Frank Nelson Building, Birmingham, Ala. 35203. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Particleboard*, from Louisville, Mississippi and Taylorsville, Mississippi to Alabama, Florida, Georgia, Illinois, Indiana, Kentucky, Missouri and Tennessee, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Georgia-Pacific Corporation, P.O. Box 520, Crossett, Ark. 71635. Send protests to: Clifford W. White, District Supervisor, Bureau of Operations, Interstate Commerce Commission, Rm. 1616, 2121 Building, Birmingham, Ala. 35203.

No. MC 124511 (Sub-No. 32TA), filed May 5, 1977. Applicant: JOHN F. OLIVER, Box 223, Mexico, Mo. 65265. Applicant's representative: James V. Angel (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Steel articles*, (1) from the facilities of Caine Steel Company at or near Madison, Ill., and (2) from St. Louis Terminals Corp. at Granite City, Ill., and St. Louis, Mo., to the facilities of Bull Moose Tube Company, a subsidiary of National Steel Corp. at Gerald, Mo., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Bull Moose Tube Company, subsidiary of National Steel Corp., P.O. Box 214, Highway 50, Gerarld, Mo. 63037. Send protests to: Vernon V. Coble, District Supervisor, Interstate Commerce Commission, 600 Federal Building, 911 Walnut Street, Kansas City, Mo. 64106.

No. MC 124813 (Sub-No. 171TA), filed May 4, 1977. Applicant: UMTHUN TRUCKING CO., 910 South Jackson Street, P.O. Box 166, Eagle Grove, Iowa 50533. Applicant's representative: William L. Fairbank, 1980 Financial Center, Des Moines, Iowa 50309. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Dry fertilizer* in bulk from Mason City, Iowa to points in Minnesota, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Land O'Lakes Agricultural Services, 2827 8th Avenue South, Fort Dodge, Iowa 50501. Send protests to: Herbert W. Allen, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 518 Federal Building, Des Moines, Iowa 50309.

No. MC 125433 (Sub-No. 100TA), filed May 5, 1977. Applicant: F-B TRUCK LINE COMPANY, 1945 South Redwood Road, Salt Lake City, Utah 84104. Applicant's representative: Michael J. Norton, P.O. Box 2135, Suite 404 Boston Bldg., Salt Lake City, Utah 84110. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Snowmobiles*, from Lancaster County, Nebr., to points in Washington, Oregon, Idaho, Montana, Utah, Wyoming, Colorado, North Dakota, South Dakota, Nebraska, Minnesota, Iowa, Wisconsin, Illinois, Michigan, Indiana, Ohio, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine and further including ports of entry between the United States and Canada, located in Washington, Idaho, Montana, North Dakota, Minnesota, Michigan, and New York, restricted to traffic originating at facilities utilized by Kawasaki Motors Corp., U.S.A. for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Kawasaki Motors Corp., U.S.A., 2009 East Edinger Ave., P.O. Box 1147, Santa Ana, Calif. 92711 (Jon De Casare-Traffic Manager). Send protests

to: District Supervisor, Lyle D. Helfer, Interstate Commerce Commission, Bureau of Operations, 5301 Federal Building, 125 South State Street, Salt Lake City, Utah 84138.

No. MC 125777 (Sub-No. 189TA), filed May 12, 1977. Applicant: JACK GRAY TRANSPORT, INC., 4600 East 15th Avenue, Gary, Ind. 46403. Applicant's representative: William E. Frantz (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Pig iron*, in dump vehicles, from Dubuque, Iowa, to all points in Illinois and Wisconsin, for 180 days. Supporting shipper(s): Miller and Company, 55 E. Monroe, Chicago, Ill. 60603. Send protests to: J. H. Gray, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 343 West Wayne Street, Suite 113, Fort Wayne, Ind. 46802.

No. MC 127651 (Sub-No. 38TA), filed May 4, 1977. Applicant: EVERETT G. ROEHL, INC., East 29th St., Box 7, Marshfield, Wis. 54449. Applicant's representative: Nancy J. Johnson, 4506 Regent St., Madison, Wis. 53705. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Wood pallets* from Rhinelander, Wis., to Fulton, N.Y., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Marplex Products, Subsidiary of Nekoosa Paper Co., P.O. Box 279, Rhinelander, Wis. 54501. Send protests to: Ronald A. Morken, District Supervisor, Interstate Commerce Commission, 139 W. Wilson St., Rm. 202, Madison, Wis. 53703.

No. MC 129074 (Sub-No. 1TA), filed May 10, 1977. Applicant: DELTA TRANSPORT LIMITED, P.O. Box 130, North Sydney, Nova Scotia, Canada B2A 3M2. Applicant's representative: Francis E. Barrett, Jr., 10 Industrial Park, Hingham, Mass. 02043. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Fish packaging supplies and trawler equipment and machinery*, from Portland, Me., to ports of entry on the United States-Canada Boundary line at or near Calais and Houlton, Me., under a continuing contract or contracts with (1) H. B. Nickerson & Sons Limited, (2) Riverport Seafoods Limited, for 180 days. Supporting shipper(s): (1) H. B. Nickerson & Sons Limited, North Sydney, Nova Scotia, Canada. (2) Riverport Seafoods Limited, Riverport, Nova Scotia, Canada. Send protests to: Donald G. Weiler, District Supervisor, Bureau of Operations, Interstate Commerce Commission, Rm. 307, 76 Pearl Street, Portland, Me. 04111.

No. MC 133133 (Sub-No. 14TA), filed May 13, 1977. Applicant: FULLER MOTOR DELIVERY CO., 802 Plum Street, Cincinnati, Ohio 45202. Applicant's representative: Norbert B. Flick, Executive Building, Cincinnati, Ohio 45202. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Fertilizer and fertilizer materials*, in bulk, in dump vehicles, from Cincinnati, Ohio, to points in the state of Indiana, for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): Indiana Farm Bureau Coop. Ass'n, Inc., 47 S. Pennsylvania St., Indianapolis, Ind. 46204. Send protests to: Paul J. Lowry, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 5514-B Federal Building, 550 Main Street, Cincinnati, Ohio 45202.

No. MC 133867 (Sub-No. 11TA), filed May 3, 1977. Applicant: STARLING TRANSPORT LINES, INC., P.O. Box 1733, 3501 S. Federal Highway, Fort Pierce, Fla. 33450. Applicant's representative: Wilmer B. Hill, 805 McLachlen Bank Bldg., Washington, D.C. 20001. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Frozen vegetables* from points in California, Lewiston, Idaho, Stanwood, Wash., Exmore, Va., Orlando, Fla.; Bells, Tenn., Hart, Mich., Ogden, Utah, Trappe, Maryland; and Vineland, N.J., to the facilities of Foodways National, Inc., at Wethersfield, Conn., under a continuing contract or contracts with Foodways National, Inc., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Foodways National, Inc., 1000 Silas Deane Highway, Wethersfield, Conn. 06109. Send protests to: Donna M. Jones, Transportation Assistant, Interstate Commerce Commission, Bureau of Operations, Monterey Building, Suite 101, 8410 NW. 53rd Terrace, Miami, Fla. 33166.

No. MC 134060 (Sub-No. 18TA), filed May 13, 1977. Applicant: DAVINDER FREIGHTWAYS, LTD., 435 Truck Road, Duncan, British Columbia, Canada V9L 2P8. Applicant's representative: James T. Johnson, 1610 IBM Bldg., Seattle, Wash. 98101. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Sodium chlorate*, in bulk, in tank vehicles, from the port of entry on the U.S.-Canada boundary at or near Blaine, Wash., to Bellingham, Wash., for 180 days. Supporting shipper(s): Eroco Industries, Ltd., 2 Gibbs Road, Toronto, Islington 678, Ontario, Canada. Send protests to: L. D. Boone, Transportation Specialist, Bureau of Operations, Interstate Commerce Commission, 858 Federal Building, Seattle, Wash. 98174.

No. MC 134477 (Sub-No. 168TA), filed April 28, 1977. Applicant: SCHANNO TRANSPORTATION, INC., 5 West Mendota Road, West St. Paul, Minn. 55118. Applicant's representative: Robert P. Sack, P.O. Box 6010, West St. Paul, Minn. 55118. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Such merchandise* as is dealt in by retail and wholesale department and hardware stores (except foodstuffs and commodities in bulk), from points in Connecticut, Illinois, Indiana, Massachusetts, Michigan, New Jersey, New York, Ohio and Pennsylvania to Brookings, South Dakota, restricted to the transportation of traffic destined to the facilities of Coast to Coast Stores Central Organization located at or near Brookings, S. Dak., for 180 days. Supporting shipper: Coast of Coast Stores Central Organization, Inc., P.O. Box 80, Minneapolis, Minn. 55440. Send protests to: Mrs. Marion L. Cheney, Transportation Assistant, Interstate Commerce Commission, Bureau of Operations, 414 Federal Building and U.S. Court House, 110 S. 4th St., Minneapolis, Minn. 55401.

No. MC 135070 (Sub-No. 7TA), filed May 4, 1977. Applicant: JAY LINES, INC., 720 North Grand, P.O. Box 4146, Amarillo, Tex. 79105. Applicant's representative: Gailyn Larsen, 521 S. 14th, Lincoln, Nebr. 68501. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting *Metal cabinets and parts and accessories* thereto, from Dover, Del., to Bentonville, Arkansas and Wichita, Kans., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Midway America, Inc., 721 East Central Street, Wichita, Kans. 67202. Send protests to: Haskell E. Ballard, District Supervisor, Interstate Commerce Commission, Bureau of Operations, Bos H-4395 Herring Plaza, Amarillo, Tex. 79101.

No. MC 139077 (Sub-No. 1TA), filed April 14, 1977. Applicant: LOOP FLEET SERVICE, INC., 1776 North Commerce St., Milwaukee, Wis. 53212. Applicant's representative: Rolfe E. Hanson, 121 W. Doty St., Madison, Wis. 53703. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Hides, skins, splits and pieces, and scrap of hides, skins and splits* between Milwaukee, Wis., and Chicago, Ill., on the one hand, and on the other, Burns Harbor, South Bend, Evansville, New Albany, Indianapolis, and Fort Wayne, Ind.; Louisville and Auburn, Ky.; St. Louis, Mo.; Bolivar and Memphis, Tenn., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper(s): There are approximately five (5) statements of support attached to the application which may be examined at the Interstate Commerce Commission in Washington, D.C., or copies thereof which may be examined at the field office named below. Send protests to: Gail Daugherty, Transportation Assistant, Interstate Commerce Commission, Bureau of Operations, U.S. Federal Building and Courthouse, 517 East Wisconsin Avenue, Room 619, Milwaukee, Wis. 53202.

No. MC 140174 (Sub-No. 2TA), filed May 5, 1977. Applicant: BROOKS TRUCKING, INC., Post Office Box 187, Vanlue, Ohio 45890. Applicant's representative: Richard H. Brandon, 220 W. Bridge St., P.O. Box 97, Dublin, Ohio 43017. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Fertilizer and fertilizer compounds*, from Findlay, Ohio to points in Indiana and Michigan,

restricted against liquid commodities in bulk, under a continuing contract or contracts with W. R. Grace & Co., Agricultural Chemicals Group for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: W. R. Grace & Co., Agricultural Chemicals Group, 301 E. Bidglow Avenue, P.O. Box 88, Findlay, Ohio 45840. Send protests to: Keith D. Warner, District Supervisor, Bureau of Operations, 313 Federal Office Building, 234 Summit Street, Toledo, Ohio 43604.

No. MC 140642 (Sub-No. 1TA), filed October 18, 1976. Applicant: DON RAY DRIVE-A-WAY COMPANY, INC., 304 N. 13th St., Decatur, Ind. 46733. Applicant's representative: Edwin J. Simcox, 601 Chamber of Commerce Bldg., Indianapolis, Ind. 46204. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Motor homes*, in a drive-a-way or tow-a-way service, between Decatur, Adams County, Ind., and Quincy, Branch County, Mich., on the one hand, and on the other, points in Colorado, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin, for 180 days. The above-described request for authority was published in the FEDERAL REGISTER November 12, 1976, but the destination State of Florida was not included. Points in Florida were added by Amendment of the applicant and the entire authority was granted by the Commission, Division 1, acting as an Appellate Division, by order entered May 13, 1977. Insofar as the authority to serve points in Florida is concerned, any interested party may file a petition for reconsideration within 30 days from the date this notice is published. Supporting shippers: There are approximately 32 statements of support attached to the application which may be examined at the Interstate Commerce Commission in Washington, D.C., or copies thereof which may be examined at the Interstate Commerce Commission, 345 W. Wayne St., Fort Wayne, Ind. 46802. Send petitions for reconsideration to: The Secretary, Interstate Commerce Commission, Washington, D.C. 20423.

No. MC 141546 (Sub-No. 18TA), filed May 10, 1977. Applicant: BULK TRANSPORT SERVICE, INC., 1 Dundee Park, Andover, Mass. 01810. Applicant's representative: Kenneth B. Williams, 84 State St., Boston, Mass. 02109. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Cement*, in bulk, in tank trucks, from points in Massachusetts to points in New York, New Jersey and Pennsylvania, for 180 days. Supporting shipper(s): Independent Cement Corporation, 65 William St., Wellesley Office Park, Wellesley, Mass. 02181. Send protests to: Max Gorenstein, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 150 Causeway St., Boston, Mass. 02114.

No. MC 142994 (Sub-No. 1TA), filed May 5, 1977. Applicant: VIRGINIA COURIER SERVICE, INC., P.O. Box 287, Harrisonburg, Va. 22801. Applicant's representative: Chester A. Zyblut, 1030 Fifteenth Street NW., Washington, D.C. 20005. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *General commodities*, except household goods, commodities in bulk and those requiring special equipment, restricted to the transportation of shipments not exceeding 5,000 lbs. per shipment, between points within a forty-mile radius of Elkton, Va., between points within a forty-mile radius of Elkton, Va.; on the one hand, and, on the other, Albany and Putney, Ga., Danville, Ga., Danville, Riverside, Philadelphia and West Point, Pa., Rahway, N.J.; John F. Kennedy Airport, L.I., and New York, City, N.Y.; Friendship Airport and Baltimore, Md., Dulles International Airport and Richmond, Va., and Washington, D.C. for 180 days. Supporting shipper: Merck & Co., Inc., P.O. Box 2000, Rahway, N.J. 07065. Send protests to: Danny R. Beeler, District Supervisor, Bureau of Operations, Interstate commerce Commission, P.O. Box 210, Roanoke, Va. 24011.

No. MC 143045 (Sub-No. 1TA), filed May 5, 1977. Applicant: JOHN M. BERMES doing business as JOHN M. BERMES TRUCKING, 1105 St. John's Avenue, Billings, Mont. 59102. Applicant's representative: Hugh Sweeney, 1201 First Northwestern Bank Center, 175 North 27th Street, Billings, Mont. 59101. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Canned goods* from Arlington and Ortonville, Minn., to points in Montana, North Dakota, Wyoming, Colorado, and Utah, for the account of Big Stone, Inc., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Blaine Mann, Vice President and General Manager, Big Stone, Inc., Box 86, Chaska, Minn. 55318. Send protests to: District Supervisor Paul J. Labane, Interstate Commerce Commission, 2602 First Avenue North, Billings, Mont. 59101.

No. MC 143201TA, filed May 5, 1977. Applicant: MID-SOUTH TRUCKING, INC., 614 N. Commerce Street, Tupelo, Miss. 38801. Applicant's representative: Mr. David M. Schwartz, 1025 Connecticut Avenue NW., Suite 500, Washington, D.C. 20036. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Meat, meat products, and meat by-products, articles distributed by meat packinghouses*, and such commodities as are used by meat packers in the conduct of their business when destined to or for use by meat packers (except commodities in bulk and hides), as described in Sections A, C, and D of Appendix I to the report in Descriptions in Motor Carrier Certificates, 61 M.C.C. 209 and 766, from the plant site, warehouse, and storage facilities of Mid-South Packers, Inc., at or near Tupelo, Miss., to points in Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin, under a continuing contract or contracts with Mid-South Packers, Inc., for 180 days. Applicant has also filed an underlying ETA seeking up to 90 days of operating authority. Supporting shipper: Mid-South Packers, Inc., 614 N. Commerce Street, Tupelo, Miss. 38801. Send protests to: Mr. Floyd A. Johnson, District Supervisor, Interstate Commerce Commission, 100 North Main Street, Suite 2006, Memphis, Tenn. 38103.

No. MC 143231TA, filed April 29, 1977. Applicant: J. H. LAFAYETTE, doing business as SKYLINE EXPRESS, Route 2, Box 325–27, Cornelius, Oreg. 97113. Applicant's representative: J. H. Lafayette (same address as applicant). Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Canned grape juice, frozen grape juice, canned apple juice, and canned cranberry juice*, from Grandview, Wash., to Oregon, Washington, and California, under a continuing contract or contracts with Yakima Valley Grape Producers, Inc., for 180 days. Supporting shipper: Yakima Valley Grape Producers, Inc., P.O. Box 520, Grandview, Wash. 98930. Send protests to: A. E. Odoms, District Supervisor, Bureau of Operations, Interstate Commerce Commission, 114 Pioneer Courthouse, 555 SW. Yamhill Street, Portland, Oreg. 97204.

No. MC 143243TA, filed May 5, 1977. Applicant: CECIL LINTON, doing business as LINTON TRUCKING, 114 Ewing St., Seymour, Ind. 47274. Applicant's representative: Donald W. Smith, Suite 2465—One Indiana Square, Indianapolis, Ind. 46204. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Plastic beehives*, from Seymour and Columbus, Ind., to the facilities of Walter T. Kelley Company at or near Clarkson, Ky., for 180 days. Supporting shipper(s): Cartwright Plastics, Inc., R.R. 1, Seymour, Ind. 47274. Send protests to: William S. Ennis, District Supervisor, Interstate Commerce Commission, Federal Bldg. and U.S. Courthouse, 46 East Ohio Street, Room 429, Indianapolis, Ind. 46204.

By the Commission.

ROBERT L. OSWALD,
Secretary.

[FR Doc.77-15376 Filed 5-27-77;8:45 am]

sunshine act meetings

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).

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1

AGENCY HOLDING MEETING: Commodity Futures Trading Commission.

TIME AND DATE: 10 AM, May 31, 1977.

PLACE: 2033 K Street, NW., Washington, D.C., 5th Floor Hearing Room.

STATUS: Parts of this meeting will be open to the public. The rest of the meeting will be closed to the public.

MATTERS TO BE CONSIDERED:

Portions open to the public:

Maintenance of Minimum Financial Requirements by FCM's—The Early Warning System.

Portions closed to the public:

Enforcement Matters.

CONTACT PERSON FOR MORE INFORMATION:

Jane Stuckley, 254–6314.

[S–511–77 Filed 5–25–77:3:58 pm]

AGENCY HOLDING THE MEETING: Consumer Product Safety Commission.

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: May 20, 1977, 42 FR 29547, and scheduled to be published May 26, 1977.

PREVIOUSLY–ANNOUNCED DATE AND TIME: May 26, 1977, 2 p.m. and May 31, 1977, 2 p.m.

CHANGES IN THE MEETINGS: The Commission had previously agreed to meet on May 31 with representatives of the Environmental Defense Fund (EDF) to discuss asbestos in consumer products. At EDF's request, the Commission changed the date of the meeting to May 26, adding the EDF meeting to the agenda immediately after a staff briefing on asbestos, which was previously announced.

[S–513–77 Filed 5–26–77:10:10 am]

3

AGENCY HOLDING THE MEETING: Federal Reserve System.

On Monday, June 6, 1977, at 10 a.m. a meeting of the Board of Governors of the Federal Reserve System will be held at the Board's offices at 20th Street and Constitution Avenue, N.W., Washington, D.C. to consider the following items of official Board business:

1. A staff study of the private placement activities of commercial banks requested by the House Committee on Banking, Finance, and Urban Affairs.
2. Any agenda items carried forward from a previously announced closed meeting.

This meeting will be closed to public observation because the items fall under exemptions contained in the Government in the Sunshine Act (5 U.S.C. 552b (c)). Information with regard to this meeting may be obtained from Mr. Joseph R. Coyne, Assistant to the Board, at (202) 452–3204.

Board of Governors of the Federal Reserve System, May 26, 1977.

GRIFFITH L. GARWOOD,
Deputy Secretary of the Board.

[S–514–77 Filed 5–26–77;11:10 am]

4

AGENCY HOLDING THE MEETING: Federal Reserve System.

On Friday, June 3, 1977, at 11 a.m. a meeting of the Board of Governors of the Federal Reserve System will be held at the Board's offices at 20th Street and Constitution Avenue, NW., Washington, D.C., to consider the following items of official Board business:

1. Draft testimony to be presented before the Senate Committee on Banking, Housing and Urban Affairs, regarding H.R. 5675, a bill to authorize the Secretary of the Treasury to invest operating cash in (1) obligations of depositories maintaining tax and loan accounts and (2) obligations of the United States and United States agencies.
2. Any agenda items carried forward from a previously announced closed meeting.

This meeting will be closed to public observation because the items fall under exemptions contained in the Government in the Sunshine Act (5 U.S.C. 552b (c)). Information with regard to this meeting may be obtained from Mr. Joseph R. Coyne, Assistant to the Board, at (202) 452–3204.

Board of Governors of the Federal Reserve System, May 26, 1977.

GRIFFITH L. GARWOOD,
Deputy Secretary of the Board.

[S–515–77 Filed 5–26–77;11:00 am]

5

AGENCY HOLDING THE MEETING: Occupational Safety and Health Review Commission.

TIME AND DATE: 2 p.m., May 31, 1977.

PLACE: Room 1101, 1825 K Street NW., Washington, D.C.

STATUS: This meeting is subject to being closed by a vote of the Commissioners taken at the beginning of the meeting.

MATTERS TO BE CONSIDERED:

Discussion of specific cases in the Commission adjudication process.

CONTACT PERSONS FOR MORE INFORMATION:

Mrs. Nori Heuberger or Ms. Lottie Richardson (202) 634–7970.

Dated: May 25, 1977.

[S–512–77 Filed 5–26–77;10:03 am]

6

AGENCY HOLDING THE MEETING: Federal Communications Commission.

TIME AND DATE: 9:30 a.m., Thursday, June 2, 1977.

PLACE: Room 856, 1919 M Street NW., Washington, D.C.

STATUS: Open Commission Meeting.

MATTERS TO BE CONSIDERED:

Agenda, Item No., and *Subject*

General—1—Photographs on Radio Operator Certificates.

Safety and Special Radio Services—1—Deregulation of Part 97 of the Commission's Rules, regarding emissions authorized in the Amateur Radio Service (Docket No. 20777).

Safety and Special Radio Services—2—Amendment of Parts 2, 13, 81 and 83 to implement changes in frequencies, operating procedures, technical standards and other criteria relating to the use of radiotelegraphy in the maritime services adopted at the ITU World Maritime Administrative Radio Conference, Geneva, 1974 (Docket No. 20813).

Common Carrier—1—Petition for suspension and investigation of American Telephone and Telegraph Company's Transmittal No. 12704 filed by Communique Auto Parts Service.

Cable Television—1—Petition for Special Relief filed by KTV Spot Sales, a Los Angeles advertising agency; and objection filed by the National Association of Broadcasters.

Television—1—Application (BRCT-166) of McClatchy Newspapers, Inc., for renewal of license for KMJ-TV, Channel 24, Fresno, California; application (BPCT-4879) of McClatchy Newspapers, Inc., for modification of the facilities of KMJ-TV, Fresno, California; and application (BPCT-4804 of San Joaquin Communications Corporation for a construction permit for a new commercial television broadcast station on Channel 24, Fresno, California.

Special—1—Additional Research Projects for Fiscal Year 1977.

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Officer, telephone number (202) 632-7260.

Issued: May 26, 1977.

[S-522-77 Filed 5-27-77;10:01 am]

7

AGENCY HOLDING THE MEETING: Federal Communications Commission.

TIME AND DATE: Follows 9:30 a.m., Open Meeting, Thursday, June 2, 1977.

PLACE: Room 856, 1919 M Street NW., Washington, D.C.

STATUS: Closed Commission Meeting.

MATTERS TO BE CONSIDERED:
Agenda, Item No., and *Subject*

Hearing—1—Motions for leave to file an Application for Review late and with extra pages and an interlocutory application for review in the comparative proceeding for construction permits for certain educational television broadcast facilities in the State of Alabama (Docket Nos. 20675-76).

Hearing—2—Petition by W. Smoot Brimhall, Commissioner of Financial Institutions of the State of Utah to terminate hearings, grant license renewal and assignment of license in Centerville, Utah AM (KLRK) license renewal proceeding (Docket Nos. 20458-59).

Hearing—3—Petitions for leave to intervene, and for stay of effective date of Initial Decision in the Ocean City, Maryland, standard broacast Station WETT renewal proceeding (Docket No. 20674).

Common Carrier—1—Discussion of the alternative facilities plans to be discussed at meeting in Rome, Italy (June 13-15, 1977) with CEPT and Canadian representatives.

Complaints and Compliance—1—Field investigation into the operations of Station WPCE, Portsmouth, Virginia and Station WOWI-FM, Norfolk, Virginia.

Complaints and Compliance—2—Field investigation into the operation of Station WBLU, Salem, Virginia.

CONTACT PERSON FOR MORE INFORMATION: Samuel M. Sharkey, FCC Public Information Officer, telephone number (202) 632-7260.

Issued: May 26, 1977.

[S-523-77 Filed 5-27-77;10:01 am]

8

AGENCY HOLDING THE MEETING: Federal Communications Commission.

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: 42 FR 267222.

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: 9:30 a.m., Thursday, May 26, 1977.

STATUS: Open Commission Meeting.

CHANGES IN THE MEETING: Consideration of the following Safety and Special Radio Services Agenda item has been cancelled, and a new date for consideration will be announced at a later time.

Notice of Proposed Rule Making relating to amendment of Part 83 to delete the requirement that voluntarily equipped ship stations be provided with a copy of Part 83 of the rules, and to require manufacturers to supply an instructional sheet with the radio equipment package.

CONTACT PERSON FOR MORE INFORMATION:

Samuel M. Sharkey, FCC Public Information Officer, telephone number (202) 632-7260.

Issued: May 26, 1977.

[S-524-77 Filed 5-27-77;10:01 am]

federal register

TUESDAY, MAY 31, 1977

PART II



FEDERAL COMMUNICATIONS COMMISSION

■

FIFTH NOTICE OF INQUIRY IN PREPARATION FOR A GENERAL WORLD ADMINISTRATIVE CONFERENCE IN 1979

FEDERAL COMMUNICATIONS COMMISSION

[Docket No. 20271; FCC 77-349]

INTERNATIONAL RADIO REGULATIONS

Fifth Notice of Inquiry [1]

In the matter of an inquiry relative to preparation for a General World Administrative Radio Conference of the International Telecommunication Union to consider revision of the international Radio Regulations.

Adopted: May 20, 1977.

Released: May 23, 1977.

By the Commission: Commissioners Wiley, Chairman; and White concurring in part and dissenting in part and issuing a joint statement; Commissioner Fogarty concurring in part and dissenting in part and issuing a statement.

1. On November 24, 1976, the Commission adopted a Third Notice of Inquiry in the above entitled matter (FCC 76-1099, No. 43086). It was released on December 6, 1976 and appeared in the FEDERAL REGISTER on December 13, 1976 (41 FR 54309). The period for comments and reply comments has passed.

2. The primary purpose of the Third Notice was "to present a proposed International Frequency Allocations Table (Article 5) and to solicit comments thereto." The proposed Table represented the status, at that time, of the development of the United States proposal for revisions to Article 5 of the international Radio Regulations; it took into consideration the comments received in response to past notices, the reports of various advisory radio Service Working Groups (SWG), and spectrum requirements made known by Government agencies. The proposed Table was accompanied by a narrative which contained a rationale for its contents and which noted a number of issues that had to be resolved before the U.S. proposal could become final; the narrative solicited specific comments on these issues in order to obtain guidance from the public on resolution of them. In addition, the Third Notice solicited specific comments on a draft protocol concerning the communications of protected medical transports which was proposed for inclusion in the Geneva Convention and on methods proposed for specifying the allowable frequency tolerance of radio transmitters. The Notice further solicited comments on "any other matter relevant to preparation for the 1979 WARC."

3. The names of parties which filed comments and reply comments in response to the Third Notice are given in Appendix 1. Although the comments and reply comments have been considered and will continue to receive attention as this preparatory effort proceeds, they are not summarized herein. Instead, their substance will be treated in the discussion which follows. It is not our intent to dwell on areas where the public agreed with proposals presented in the Third Notice of Inquiry; the discussions highlight those areas where the respondents felt their requirements were not being satisfied.

4. In reviewing the multitude of comments received in response to the Third Notice, it became apparent that many parties have misinterpreted the purpose and extent of this proceeding. This docket has been initiated for the purpose of preparing the U.S. proposals for the 1979 World Administrative Radio Conference, and it is the only issue that is involved. We recognize that in some cases it may be difficult to separate purely domestic issues from international matters; however, every attempt must be made to keep these issues distinct. As has been previously indicated in this docket, it is not a domestic Rule Making proceeding, but rather an Inquiry to determine the best U.S. proposals to modify the International Table of Frequency Allocations and associated Radio Regulations in order to meet future telecommunication needs. Since the international allocations table forms the framework of our domestic allocations table, the international table must have the flexibility built into it to accommodate national/regional needs as they arise. The table cannot remain static to accommodate only present on-the-air systems; it must be capable of accommodating future technological developments. Without this flexibility in the table, the ability of the U.S. to meet future requirements would be severely constrained. It is in this context that comments are solicited.

5. The agenda established by the Administrative Council of June 1976 of the International Telecommunication Union (ITU) for the 1979 GWARC was presented in paragraph 6 of the Third Notice, and that Agenda is still the guide for preparing U.S. proposals.

6. The Third Notice presented a draft protocol concerning communications for protected medical transports which was proposed for inclusion in the Convention on International Humanitarian Law applicable in armed conflict. Since no respondents commented on that draft protocol, we shall assume that the public favors it and we will proceed to take the appropriate action.

7. The Third Notice also solicited comments on methods for expressing frequency tolerances. That subject was further treated in the Fourth Notice of Inquiry in this docket along with discussions on small antenna earth stations, spacecraft stationkeeping, spacecraft antenna pointing error, Radio Regulation Appendices 3 and 4, and possible new emission designators.

8. This Fifth Notice of Inquiry in Docket 20271 includes discussions of articles in the Radio Regulations which deal with allocations, definitions, and technical and operational matters, and discussions of the Resolutions and Recommendations. We emphasize that we are presenting proposals for changes to these items. Depending on their further development, these proposals may or may not be submitted to the International Telecommunication Union; they may or may not be accepted at the 1979 WARC. National implementation will require further action by us. The proposals and associated discussions represent the views of the United States preparatory structure as identified to date. As previously indicated, other requirements will continue to be treated as identified.

9. The primary purpose of this Notice is to present a revised proposal for the International Frequency Allocations Table (Article 5) and to solicit comments thereto. In the development of this proposal, we have considered the comments and reply comments received in response to the Third Notice, the intentions of the Federal Government and information available to the Commission. The proposed Table is attached as Appendix 2 to this Notice; a discussion of its contents is provided in the following paragraphs.

INTERNATIONAL RADIO REGULATIONS (ARTICLE 5)

SPECTRUM BETWEEN 10 KHZ AND 400 KHZ

10. Allocation table changes proposed in this frequency range in the Third Notice were the subject of numerous comments and reply comments from interested parties. Due consideartion of the comments and continued evaluation of service requirements has led to several changes in the proposed Table of Allocations. In the following paragraphs we will discuss the proposed changes, as well as address the several areas of controversy developed in the public comments.

Amateur

11. The proposed changes in the Amateur allocation given in the Third Notice were generally well received by the amateur community. However, in the responses received from other services, notably the radiolocation service and the power line carrier system operators, there was repeated concern that the possibility of frequency coordination with the Amateur service is extremely remote due to the variable and unpredictable frequency usage of any given amateur radio operator. Therefore, it is felt that all services would benefit from the assignment of an exclusive allocation for the Amateur service wherever possible. This is what is generally proposed. This would have the additional effect of removing any unusual restrictions on amateur use in their exclusive channels, enabling more efficient use of a smaller allocation.

12. The need for an amateur allocation to be proposed by the U.S. to the 1979 WARC at 160–190 kHz has not been established. We have, however, proposed that Broadcasting be added in the 115–190 kHz range; this is treated in further detail in the Broadcast section.

13. Because of extensive national requirements, we have not been able to continue the proposal for Amateur shared use of the 1750–1800 kHz band. We have, however, maintained the proposal for exclusive Amateur use of the 1800–1900 kHz band. This proposal, if adopted by the 1979 WARC, should adequately provide for the Amateur service in this band. Because of the continuing

[1] 42 FR 11258.

need for LORAN in the 1900–2000 kHz band, we are proposing to maintain RADIONAVIGATION in this band, shared internationally with Amateur and other services.

14. At the 3500 kHz region, we are continuing the proposal for exclusive Amateur use of the 3500–3900 kHz band, but only on a Region 2 basis. Further, we are continuing the proposal for shared use of the 3900—4000 kHz band by the Amateur and other radio services.

Broadcast

15. Many comments were received regarding the proposed extension of the present AM broadcast allocation. In response to these comments, we are proposing international allocations that will provide for broadcasting between 115–190 kHz, and 1615–1800 kHz, noting that the international proposal for broadcast allocations between 525–535 kHz, and 1605–1615 kHz contained in the Third Notice have not been modified. We feel that the need for additional spectrum for the AM broadcasting service has been established. The present AM band, 535–1605 kHz, is used very efficiently in this country; however, the increasing complexity of applications and increasing cost of brodcasting antenna facilities necessary to protect existing stations greatly inhibits future development of this service. If the proposal is adopted internationally and implemented nationally, these channels could increase the diversity of programming choices available to listeners, and provide local broacast services to communities presently denied service due to existing interference situations.

16. If the broadcast allocation between 115–190 kHz is adopted internationally, national requirements dictate that existing operations (including power line operations) would have to be accommodated. This would mean the "engineering-in" of broadcast frequencies. Since AM broadcast operations are already subject to extensive engineering studies, we foresee no great difficulty in this regard. Thus, existing national requirements would be taken into consideration when domestic implementation of the broadcast allocations were undertaken.

17. As mentioned earlier, we are proposing internationally an allocation for broadcasting at 1615–1800 kHz, to be shared with, among others, the Radiolocation service. We feel that the need for the proposed broadcasting allocation has been amply justified. Sharing difficulties, particularly with the Radiolocation service, will be treated under that service.

Mobile

18. Comments in response to the Third Notice on Land Mobile below 400 kHz were very limited in number. The Third Notice contained a proposal to add this service to the 1615–1750 kHz band, deleting the Mobile Service. At this time, and in light of other proposals, we are proposing Mobile at 1605–1800 kHz, which could provide for land mobile use of this band after appropriate national rulemaking.

Radiolocation

19. Several comments were received regarding the present high interference levels being experienced in the shared band 1605–1800 kHz. As indicated earlier, we are proposing an allocation for Broadcast in Region 2 in this band. We solicit detailed parameters of present and foreseen systems for developing meaningful sharing criteria. In this regard, we are adding a proposed footnote 195B to provide for Radiolocation on a world-wide basis in the bands 1615–1800 kHz and 3230–3400 kHz. We fully recognize that if this proposal is adopted internationally, Radiolocation will have to continue to be satisfied on a national basis. Proposed footnote 195C, for the 1615–1800 kHz band, would assist in ensuring that Radiolocation would not receive harmful interference in the proximity of international boundaries. Notwithstanding this, we feel that Broadcasting and Radiolocation can share the band, and that Radiolocation requirements will be met. Further, we may be able to guarantee Radiolocation access to this band by setting aside nationally, and within the interior of the country, a certain number of frequencies in which no broadcasting signals in the periphery of the Radiolocation emission would be permitted to exceed a specified level. A frequency width of 6 kHz with no broadcasting signals exceeding 0.1 microvolt in the Radiolocation emission has been suggested, to satisfy one existing known national requirement. In addition, Radiolocation is being continued to be proposed in the 1900–2000 kHz band.

Radionavigation

20. As suggested in comments filed in response to the Third Notice, it is proposed to add Aeronautical Radionavigation in the 190–200 kHz band in Region 2. The fixed requirements remaining in this band would have to be accommodated. We are also proposing that the permitted status for Aeronautical Radionavigation in the 525–535 kHz band be restored. Further, we are proposing that this service be reinstated as previously allocated in all regions for the band 510–525 kHz.

21. The U.S. Maritime interests which commented on our proposal for an Aeronautical Radionavigation permitted allocation at 415–490 kHz, felt strongly that the present allocation for maritime services and this proposed allocation were incompatible. We have deleted the proposed Aeronautical Radionavigation allocation; however, we note that there is a continuing need to provide for navigation beacons in applications such as on off-shore platforms and at smaller airports. We solicit specific comments as to how that need can be accommodated.

22. We are proposing to delete Aeronautical Radionavigation from 1605–1800 kHz since no justification for retention has been received and further, to delete Radionavigation from 1800–1900 kHz. This latter proposal is predicated on the removal of LORAN operations in this band by 1980. Since the status of LORAN in the 1900–2000 kHz band is unclear, we have made no proposal to remove the allocation from this band, noting that the secondary allocation proposed for Radiolocation is continued. We are, however, proposing a modification to footnote 198 and a new footnote 198A, which should provide for other use of this band once the LORAN system is disestablished.

SPECTRUM BETWEEN 4 MHZ AND 27.5 MHZ

Amateur

23. Comments were filed by the WARC Advisory Committee for Amateur Radio and the American Radio Relay League (ARRL); twenty-five amateur radio clubs; and thirty amateurs. While the comments varied, nearly all concerned one or more of the following: proposed allocation of additional bands at 10, 18, and 24 MHz; rearrangement of the proposed allocations at 21 MHz, which would cause expensive equipment modification; and correction of the interference at 7 MHz between the Amateur and international Broadcasting services.

24. In this Notice of Inquiry we are proposing an additional band at 25760–25860 kHz for the Amateur Service which could be considered as satisfying the request for a band at 24 MHz, but we are unable to propose bands at 10 and 18 MHz. The request for rearrangement of the 21 MHz allocation has been fulfilled since comments submitted by the Radio Technical Commission for Marine Services indicate that such a rearrangement would be acceptable. Removal of the interference at 7 MHz between Amateur and international Broadcasting has been difficult to accomplish because of the large demand for spectrum and the I.T.U. Region 1 and 3 allocation of 7100–7300 kHz to the Broadcasting service. The attached proposal provides the bands 6950–7000 and 7000–7250 kHz for the Amateur service on an exclusive worldwide basis and the bands 7250–7300 and 7300–7500 kHz for the Broadcasting service on a shared basis. We believe this proposal could be acceptable to international Broadcasters and would eliminate the sharing difficulties presently encountered by the amateur and the international Broadcasters.

Aeronautical Mobil (R)

25. Comments were filed by Aircraft Owners and Pilots Association (AOPA); Special Committee 129 of the Radio Technical Commission for Aeronautics; Aviation Service Working Group (ASWG; and jointly by Aeronautical Radio, Inc. (ARINC) and the Air Transport Association of America (ATA).

26. ARINC, ATA, AOPA and A-SWG supported the proposals for the bands between 4 and 27.5 MHz as set forth in the Third Notice and those proposals are unchanged in this Notice.

Fixed Service

27. As mentioned in the Third Notice, and affirmed by the comments of the American Telephone and Telegraph Co., a substantial part of common carrier and other operations using frequencies in the

Fixed Service at 4–27.5 MHz have been shifted to satellite and to cable systems. The table attached to this Notice proposes substantial reallocations of spectrum currently allocated to the Fixed Service to other services. To alert the parties affected, we are listing below the proposed services and the portion of the spectrum proposed for reallocation to those services:

Present ITU band (kilohertz)	Existing service	Proposed ITU band (kilohertz)	Proposed new service
4438–4650	Fixed mobile except aeronautical mobile (R)	4438–4560	Maritime mobile.
5060–5250	Fixed	5200–5250	Do.
5250–5430	Fixed land mobile	5250–5300	Do.
6765–7000	Fixed	6950–7000	Amateur/amateur satellite.
7300–8195	do	8000–8195	Maritime mobile.
11975–12330	do	12130–12330	Do.
13360–14000	do	13360–13410	Radio astronomy.
13360–14000	do	13950–14000	Amateur.
14350–14990	do	14350–14400	Do.
15450–16460	do	16310–16460	Maritime mobile.
17360–17700	do	17360–17410	Do.
20010–2100	do	20010–20230	Do.
20010–21000	do	20950–21000	Amateur/amateur satellite.
22720–23200	do	22720–22855	Maritime mobile.

28. In addition to these proposed reallocations, this Notice contains proposals to add other services to bands now allocated exclusively to the Fixed service. As the fixed operations move from this part of the spectrum, those services can make more use of the vacated frequencies.

29. It is our intention to accommodate the fixed users that justify their operation in this part of the spectrum by reassigning the operations to suitable frequencies. To further reduce the impact on the Fixed users, we are considering proposing a footnote to the allocations table along the following lines:

On the condition that harmful interference is not caused to the Maritime Mobile Service, the frequencies 4438–4560 kHz, 5200–5300 kHz, 8000–8195 kHz, 12130–12330 kHz, 16310–16460 kHz, 17360–17410 kHz, 20010–20230 kHz, and 22720–22855 kHz may be used exceptionally by fixed stations communicating only within the boundary of the country in which they are located.

30. This note would be similar to the present Nos. 209 and 211. We are not now, however, proposing a power limit against the Fixed service using frequencies from within the maritime allocations. Comments on the proposed footnote, along with a power limit, if any, are requested.

Maritime Mobile

31. Comments on this portion of the spectrum were filed by Special Committee 69 of the Radio Technical Commission for Marine Services (Maritime Mobile Service Working Group, MM–SWG); American Telephone and Telegraph Company (AT&T); North Pacific Marine Radio Council (NPMRC); Mobile Marine Radio, Inc. (Mobile); Hoyt Haddock; and Arthur Thompson. Reply comments were filed by RTCM SC69 (MM–SWG) to the comments filed by Arthur Thompson.

32. RTCM (MM–SWG), AT&T, NPMRC, Mobile and H. Haddock strongly supported the proposed expansion of allocations to the Maritime Mobile service in the bands between 4 and 27.5 MHz. RTCM (MM–SWG) and AT&T urged that these allocations be further expanded. AT&T stated that the proposed Maritime Mobile allocations were only ⅓ of that necessary to accommodate the service and noted that frequencies in this portion of the spectrum are required because satellite systems will be attractive only to vessels with large and special needs. The RTCM stated that the increased allocations proposed in the Third Notice would fall far short of accommodating needs and submitted additional statistics which would justify additional increases. It believes that the HF Fixed service should be further reduced. Arthur Thompson believes that HF should be put to use for services which have no other alternatives and noted that the Maritime Mobile service is lagging in the implementation of new techniques such as satellite communication. The RTCM replied that there is a growing number of small ships for which the costs of satellite communications could not be justified. In general, while there was generous support in favor, there was no substantial comment in opposition to expansion of allocations to Maritime Mobile service in the 4–27.5 MHz bands.

33. In the attached Table we are proposing the band changes between 20010 and 21850 kHz, as urged by the Amateur service and supported by the RTCM, which involves the proposed allocations for the Amateur, Amateur-Satellite, Mobile, Fixed, Maritime Mobile and Broadcasting Services. We cannot, at this time, propose the additional increases in spectrum which have been requested by the Maritime Mobile interests.

Mobile

34. Comments were filed on behalf of the Citizens Band service by the International CB Radio Operators Association (CBA). In their comments, CBA restated an earlier request by the Citizens Radio Advisory Service WARC Advisory Committee that one megacycle of spectrum be proposed for reallocation to the Citizens Band service between 26 and 28 MHz. However, the Consumer Electronics Group of the Electronic Industries Association was opposed to any expansion of the service at 27 MHz because it believes that the expansion would result in more TV interference. The Private Land Mobile SWG commended the Commission for retaining the allocations below 470 MHz which are used by the Land Mobile services. The proposals contained in this Notice are unchanged from those contained in the Third Notice.

Radio Astronomy

35. The National Academy of Sciences supported the general plan of the proposed table, but concurred with the comments of the Radio Astronomy Service Working Group (RA–SWG). The RA–SWG commented that the proposed allocation at 13360–13410 kHz should be expanded from 50 to 100 kHz, and further, that the proposed allocation at 25850–26050 kHz would better meet the needs of the Radio Astronomy community if it were located at 25900–26100 kHz. Considering the needs of all services, we are unable to propose an expansion of the proposed allocation at 13 MHz from 50 to 100 kHz, and find it necessary to relocate the previously proposed allocation to Radio Astronomy from 25850–26050 to 25600–25760 kHz. The opposition to the allocation previously proposed at 25 MHz for Radio Astronomy, expressed by the Auxiliary Broadcast Service Working Group, is treated under the section headed Broadcast Auxiliary.

Broadcast Auxiliary

36. The National Broadcasting Company recommended that the frequency table continue to provide for the use of remote pickup broadcast base and mobile stations. These are currently provided in the band 25850–26100 kHz. The Auxiliary Broadcast Service Working Group opposed the proposed allocation to Radio Astronomy at 25850–26050 kHz on the basis that the allocation would substantially negate use of 25850–26100 kHz for remote pickup broadcasting. The F.C.C. rules currently locate remote pickup broadcasting within the international allocation (25600–26100 kHz) for Broadcasting. In this Notice we are proposings changes in allocations for Broadcasting and Radio Astronomy; these changes would not impede continuation of the past domestic practice of meeting the needs of remote pickup broadcast within the Broadcasting allocation, except perhaps for that portion of 25600–26100 kHz which we are proposing for reallocation to Radio Astronomy and Amateur use.

HF Broadcasting

37. Comments were filed by Trans World Radio, Trans World Radio Pacific, Far East Broadcasting Company, Inc., Family Stations, Inc., and the International Broadcasting Service Working ing Group. The comments urged the allocation of additional spectrum for International Broadcasting. Family Stations noted that there has already been a de-facto allocation of spectrum due to out-of-band operations conducted by some countries. The respondents generally believed that the Commission's treatment of their needs was inadequate and, perhaps, arbitrary. They noted that program hours is not a good measure of broadcast growth and pointed to channel hours as the relevant statistic

which should be used (the channel hours figure increases as the number of transmitters broadcasting a particular program grows). They also noted that the Panel of Experts established following the 1959 Ordinary Administrative Radio Conference had not recommended single sideband for broadcast emission, but had limited that recommendation to radiotelephony and telegraphy systems only.

38. The thrust of the comments was that interference between stations in the bands allocated to HF Broadcasting Service is so severe that additional spectrum must be allocated since the present HF broadcasting bands are overcrowded. The number of transmitters worldwide has since 1959 increased approximately four times. Extensive monitoring by many countries has established the extreme nature of the congestion beyond reasonable doubt. The basic questions are—why are the bands so crowded and can anything be done about the growing congestion?

39. The crowded condition of the bands is partially due to the fact that the HF broadcasting services have been confined to spectrum space allocated in 1947 at the Atlantic City Conference. Over 100 countries are using the bands either for international or domestic coverage, and many for both services. This growth in usage has led to the application of higher power installations and the use of more than one transmitter to cover the same service area.

40. The proposals contained in this Notice of Inquiry are aimed toward the long term alleviation of the congestion and a reduced need for higher and higher power. First, three new bands are proposed as follows: 4063–4123 KHz; 7250–7500 KHz; and 13,700–13,800 KHz. The 7 and 13 MHz bands should provide for greater frequency diversity permitting stations to operate under more optimum propagation conditions depending upon length of path to the area to be served thereby reducing the need for competing signals in the same band.

41. Secondly, this Notice proposes the expansion of three bands to alleviate crowding. These expansions are as follows: The 11,700–11,975 KHz band would be expanded downward to 11,600 KHz; the 15,100–15,450 KHz band would be expanded upwards to 15,550 KHz, and the 17,700–17,900 KHz band would be expanded downward to 17,600 KHz.

42. We feel that the above proposals will do much to treat the basic causes of congestion in the HF broadcasting service. However, there is a great need for technical and operational rules which could facilitate the shared use of spectrum and accommodate the future growth of HF Broadcasting.

43. The time between now and the 1979 Conference is probably insufficient to develop technical and operational rules. Certainly there will be insufficient time at the Conference to fully develop plans for High Frequency broadcasting and a subsequent specialized WARC will probably need to be held to deal only with that service. In this connection, because of the present uncertainty with respect to the specific wording of certain items on the 1979 Conference agenda, there is some question as to whether Article 10 of the international Radio Regulations is to be included. Alternatively, it is possible that a resolution to hold a specialized High Frequency broadcasting conference may result. We are, therefore, requesting comments on either eventuality although the 32nd Administrative Council Session meeting in Geneva during the period May 23–June 10, 1977 may clarify the point.

44. As to the details to be taken up in such a specialized WARC we solicit comments. In this Notice we propose maximum power limits for HF Broadcasting. Should minimum power limits also be established? Compatible single side band transmissions have been suggested and offers have been made to undertake tests. A move in this direction could provide space for growth in the present bands and could result in a significant reduction in primary power requirements. Co-channel and adjacent channel protection ratios and minimum required field strength over a service area should be examined.

45. Further, Appendix 3 draws attention to proposals which among other matters would limit power, and stresses the need for consideration of compatible single side band which could improve spectrum efficiency considerably. While the conversion to CSSB would create difficulties at first in implementation, nevertheless we believe these proposals deserve intensive consideration.

46. Although requirements for HF Broadcasting have not yet been finalized, some allocations and technical changes are being proposed.

47–51. [Reserved.]

SPECTRUM BETWEEN 27.5 MHZ AND 1215 MHZ

52. Our Third Notice stated that this portion of the spectrum may be the most contentious portion to be considered in preparation for the 1979 WARC and at the WARC itself. We believe this is so because this range of frequencies is the most desirable for local broadcasting as well as non-broadcast communications. Frequencies between 450 MHz and 1 GHz are particularly suited for short-range mobile communications and will likely be the only area of the spectrum where short-range mobile communications growth can be expected to be accommodated into the longterm future. Frequencies between 470 and 890 MHz are also the range of spectrum where television broadcasters expect growth to occur. Comments and service working group reports received in response to our Notice confirm these observations. We summarize the nature and extent of the problem between 470 MHz and 890 MHz:

53. The International Radio Regulations provide exclusive frequency allocations between 470 and 890 MHz for the Broadcasting Service in Region 2.[1] Region 2 includes North and South America. In the United States the band 470 to 890 MHz provides for UHF TV channels 14 thru 83 (70 UHF-TV channels, each 6 MHz wide). Commission decisions taken in Docket 18261 and 18262 respectively provide for Land Mobile access to the lower 7 channels (14–20) in 13 major urbanized areas and for reallocation of the upper 14 channels (70–83) to the Land Mobile services nationwide with existing TV translators on a secondary basis.

Statement of the Problem

54 Beyond Commission decisions taken in Dockets 18261 and 18262 there have been non-television requirements stated particularly for short-range mobile communications, which, by the year 2000, could amount to approximately 268 MHz in the band between 470 and 806 MHz.[2] On the other hand, Broadcasting requirements for commercial and noncommercial UHF television stations have been stated which, by the year 2000 could require a full complement of frequencies between 470 and 806 MHz.

55. In reviewing the comments and the service working group reports we have found that projecting service requirements to the year 2000 is not an easy task for spectrum users. Justifying such projections is particularly difficult since the communications industry is growing and technology is changing so fast that requirements for frequencies so far into the future are subject to considerable uncertainty.

BAND 470–890 MHZ

56. In this Fifth Notice of Inquiry, we are proposing that Region 2 of the International Table be modified along the following lines:

470–512 MHz BROADCASTING/MOBILE
512–608 MHz BROADCASTING
608–614 MHz RADIO ASTRONOMY
614–806 MHz BROADCASTING
806–890 MHz Broadcasting/MOBILE

57. This proposal, if adopted by the 1979 WARC, would bring the international allocation table into line with our current domestic table except in the band 806–890 MHz where it provides for international allocation for Mobile service primary and broadcasting secondary and a footnote for mobile-satellite service operation. In addition, national rules confine mobile operations in the bands 470–512 MHz and 806–890 MHz to the land mobile services; and for Broadcast operations, to TV translators on a secondary basis in the 806–890 MHz band.

58. The above allocation proposal would reduce the exclusive Broadcasting allocations in Region 2 and would not provide for all the exclusive Region 2 spectrum requested by the TV Service Working Group. Neither would it provide for spectrum between 584 and 614 MHz requested by the Aeronautical Services worldwide, or spectrum between 582

[1] Except that Footnote 332 provides for radio astronomy use of the band 608–614 MHz.

[2] Private Land Mobile 102 to 174 MHz; Aeronautical Mobile (R) 30 MHz; Maritime Mobile 18 MHz; Radioastronomy 6 MHz; FM Broadcast 24 MHz; B'Cast Sat. (Aural) 6 MHz; Personal Radio services 10 MHz.

and 606 MHz requested by the Maritime Services worldwide. It is argued that co-equal allocations would provide the flexibility requested by the land mobile community for a primary Broadcasting and Mobile allocation in Region 2 in the band between 512 and 806 MHz to meet potential need for between 102 and 174 MHz of spectrum in this band.

59. The Commission is not convinced that sufficient evidence has been introduced to justify a position other than that outlined in paragraph 56 for any of the services indicated. Proposals for the use of the band 470–890 MHz range all the way from exclusive television broadcasting to a total co-equal allocation of broadcasting and mobile across the band. The Commission finds that the various service working group reports and comments received do not adequately justify in terms of documented future growth, scientifically based studies and usage data, the requests for exclusive worldwide spectrum allocations for aeronautical and maritime services or the shared Region 2 international allocation requested by the land mobile community. Absent such documentation we see no compelling reasons, at this point, to provide for exclusive allocations or additional flexibility in the international table between 470 and 890 MHz beyond that described. Accordingly, we continue to solicit comments and supporting data to fully support retention of present allocations, as well as any changes in the allocations as proposed in paragraph 56. We also solicit further views regarding alternatives which may exist to satisfy requests for spectrum between 470 and 890 MHz.

60. It should be noted that the Commission created a Task Force on October 14, 1976, to obtain information and conduct studies to aid in developing policies concerning frequency allocations in the UHF television band (470–890 MHz). It is hoped that the interim results of its studies will be available early enough to assist the Commission in formulating a final U.S. position on UHF allocations for the 1979 World Administrative Radio Conference. One of the areas to be examined by the Task Force concerns the requests of the non-television services seeking the use of the 470–890 MHz spectrum. Time constraints of the WARC have limited the major focus of the group in this area to consideration of the international services requests. These are the Aeronautical and Maritime Services which seek, respectively, 30 and 18 MHz of the spectrum domestically allocated to the UHF television band. While much information has been developed on the present VHF operations of the Maritime Service and a lesser amount on the Aeronautical Service, additional specific data is needed for each service.

61. As technology progresses it is likely that improved methods of television transmissions will emerge providing a new generation of higher quality pictures and sound. It is questionable if such a new generation can be expected to emerge within the spectrum currently allocated to VHF, but may emerge in the UHF band. It is also anticipated that lower power local origination television stations may also develop in the UHF frequencies. Further, the future needs of minorities and non-commercial operators may be heavily dependent on frequency availability in the UHF band. Additional comments, documenting as far as possible, future broadcast type needs in the UHF band are invited.

62. The Commission recognizes the complexity of issues found at this band both internationally and domestically, issues which relate to technology, growth of services, the need for flexibility, and the efficient use of spectrum. Comments are requested on these and other related issues.

63. [Reserved]

Aeronautical Mobile

64. The aeronautical community has withdrawn its proposal for a navigation requirement while stating the continuing need for operational control communications between 584 and 614 MHz. A flexible allocation is desirable for aviation services. Communications in the Aeronautical Service occur between aircraft of all nations and U.S. land stations as aircraft arrive and depart U.S. airports; aircraft are subject (functionally and technically) to compulsory equipment outfitting for safety resulting from international treaties, and international frequency planning is accepted practice. Moreover, the lead time required to plan an aeronautical conference, which is convened to consider planning for aviation only and does not consider any other service, necessitates that band limits for aeronautical operations be specified in advance. The aeronautical community believes that these factors warrant specific allocation proposals.

65. Comments were solicited in the Third Notice as to satisfying additional aeronautical requirements of 8 MHz for operational control. In the Third Notice, no proposal was made to satisfy this requirement between 136 and 150 MHz. In this Fifth Notice we are again unable to advance a proposed solution. While attempting to address the requirement, we have looked at the idea of satisfying a portion of the requirement in the mid-range future by adding a footnote to the band 136–138 MHz which would provide for gradual reduction of presently allocated services. This footnote could read along the following lines:

ADD 273C In the band 136–138 MHz no new transmitters are authorized the Space Research, Space Operation or Meteriogical-Satellite services after 1–1–82. Operation by these services are on a primary basis until 1–1–87 and on a permitted Secondary non-interference basis to the primary service until 1–1–90. Operation by the above services is not permitted after 1–1–90. In this band the Aeronautical Mobile (R) Service is not authorized operation in this band until 1–1–82. During the period 1–1–82 until 1–1–87, operation by the Aeronautical Mobile (R) service will be on a secondary non-interference basis. After 1–1–87 the Aero Mob (R) Service is the primary service.

66. In looking at the present space users between 136–138 MHz, we find that there is a major capital investment of perhaps over 5 Billion dollars in the U.S., and a further substantial investment on a worldwide basis. In addition to present satellite systems in this band, *i.e.*, GOES, ITOS, Timation Navigation, SOLRAD, and others, planned future activities indicate a continuing need for U.S. and foreign satellite operations. It thus becomes apparent that the satisfaction of aeronautical requirements in this band is not possible. Comments on other solutions to this problem are requested.

67. Notwithstanding the above, we note that our rules provide for 25 kHz channel spacing the band between 128.-825 MHz and 132 MHz effectively doubling available frequencies to 128 for enroute (operational control) functions. While we recognize the limitations on the use of these frequencies due to international coordination, information is requested on an implementation schedule for their use and the effect which use of these 25 kHz channels will have upon (1) satisfying current and future needs of aviation for operational control, (2) the need for additional VHF spectrum, e.g., 136 MHz–138 MHz and (3) the need for UHF spectrum, *e.g.*, 584 MHz–614 MHz. Comments are solicited on this approach and these questions, and further, how this requirement can be satisfied.

67A. In support of the effort discussed in paragraph 60, information is requested in the following areas of present spectrum usage for both network and off-network stations in busy locations in congested areas:

1. Peak-hour occupancy
2. Average-hour occupancy
3. Waiting time
4. Number of messages per day
5. Length and type of messages transmitted.

Amateur/Amateur-Satellite

68. The Amateur community generally supported proposals in our Notice with the exception of the introduction of the Mobile service in the band 220–225 MHz. Amateurs also request provision for Amateur-Satellite service in Region 2 for the band 902–928 MHz which in accordance with existing national policy is used on a primary basis for Radiolocation systems. We have made proposals for a secondary allocation for Amateur in this band. Due to national requirements, we have been unable to accommodate a proposal for Amateur-Satellite at 220–225 MHz. We have addressed the 220–225 MHz Mobile allocation elsewhere.

69. In addition, the National Astronomy and Ionosphere Center (NAIC) recommended that we propose a shift in the Amateur-Satellite allocation at 435–438 MHz to the top of the band (447–450 MHz). We believe that experience at 435–438 MHz has demonstrated that amateur satellites have little or no potential for interfering with other radio services which share the same allocation and that

reliable control of the emissions of an amateur satellite can be accomplished, further providing necessary protection to other services. Moreover, present sharing arrangements with Radiolocation has proved to be satisfactory. To shift Amateur-Satellite allocations to 447–450 MHz is likely to cause interference between Amateur stations since the band 442–450 MHz is available for amateur repeater stations. Thus, we propose to maintain the Amateur-Satellite allocation.

Broadcasting

70. The television industry stated that there has been no showing that it is necessary to revise the international table of allocations to accommodate either land mobile demand for UHF channels or any other nonbroadcast demand. Moreover, Broadcasters stated that the full complement of frequencies allocated to Broadcasting will be needed for local service, and that no feasible alternatives exist. Further, Broadcasters project that public television stations will grow from 160 presently to more than 420 by the year 2000 and expect similar growth and saturation for commercial UHF stations.

71. Thus, the television broadcasters recommended maintaining the exclusive international allocation to Broadcasting between 470 and 890 MHz. Our Third Notice in this proceeding proposed reallocation of the band 806 to 890 MHz to the Mobile service in Region 2 to be consistent with Commission decisions taken in Docket No. 18262. However, broadcasters proposed that access to that band for UHF television translator stations be retained, which is presently provided for in our rules.

72. FM Broadcasters requested that a new FM service be proposed as originally suggested between 782 and 806 MHz. Such a service, as with other such proposals, is properly addressed in domestic rule making, provided, however, that the allocation for Broadcasting in Region 2 remains in the international table of allocations.

Land Mobile (Common Carrier)

73. The common carrier land mobile community supported our Third Notice with respect to existing allocations but noted that no provision was made for decisions taken in Docket No. 18261. In addition, our proposal for a Mobile allocation between 896–902 MHz and 941–947 MHz, which may be used for a worldwide air-ground public correspondence service, was supported by the common carrier land mobile community and AT&T because it has the necessary flexibility for possible future domestic inquiry and allocation. While the Aviation Service Working Group also supported the Mobile allocation, the Private Land Mobile Service Working Group opposed consideration of an air-ground service since reserve frequencies potentially available to private land mobile might be used. The Auxiliary Broadcast Service Working Group also objects to inclusion of an air-ground service since Broadcasters seek to restore use of the band 942–947 MHz for Aural STL and Inter-City Relay services. We also note that sharing problems may exist with the Radiolocation service.

74. In this Fifth Notice we are proposing a secondary allocation for Radiolocation in the 896–902 and 941–942 MHz bands. Radars, mostly mobile, now operating in these bands and others, and projected during the future will have the following general parameters:

Power Peaks—1–3 Megawatts.
Pulse Repetition Rate—250–300 pps.
Duty Cycle—about 1%.
Beam Width (Horizontal)—1–3 degrees.

The distribution of platforms carrying these radars is relatively sparse on a worldwide basis.

75. We are continuing our proposal for a Mobile allocation at this time to be consistent with our goal of flexibility and to provide for future planning in accordance with long term needs and priorities. However, comments are invited from interested parties, particularly the general aviation community, with respect to the need for and scope of the worldwide public air-ground service, which might operate in the 896–902 and 941–947 MHz bands.

76. The Common Carrier Land Mobile and Aviation Service Working Groups have submitted substantial justification for this public air/ground service. This service is primarily intended to provide a radiotelephone link between the airplane and the ground telephone system to give passengers and crew a means of communicating for purposes *in addition* to those associated with the safety, control or origin of flight of the aircraft. This type of service is presently not permitted on frequencies allocated to the Aeronautical Mobile (R) Service. An existing system which operates in 450–460 MHz is inadequate for anticipated future expansion and is primarily limited by agreement with the scheduled airlines to General and Business Aviation uses. Any air-ground public telephone system which would cater to airlines as well as general and business aviation should have adequate frequencies to support world-wide needs. An ultimate public correspondence system should be able to communicate with an aircraft in flight anywhere and be able to connect it directly with the worldwide telephone network at or near its geographic position.

In summary such a system may consist of the following:

1. Provide public radiotelephone service to commercial aircraft and general aviation.
2. Provide a 0.98 probability of obtaining a channel.
3. Have geographic distribution of ground stations of between 77 and 154 miles.
4. Accommodate aircraft flying between 2,000 and 60,000 feet.
5. Provide up to 300 radio channels spaced between 25 and 40 kHz.

77. Further, we note that if an air-ground system is implemented at 896–902 and 941–947 MHz, it may in fact be too close to the Aeronautical Radionavigation band at 960–1215 MHz, causing unacceptable interference aboard the airframe. Comments on this issue are requested.

78. Finally, to what extent may the band 584–614 requested by the Aviation SWG for operational control communications satisfy the needs for a public air-ground system? As to the international nature of the proposed air-ground service, how could it be operated in conjunction with, while being distinguished from, the Aeronautical Mobile (R) service which provides for operational control and safety communications? Comments on these issues are requested.

Land Mobile (Private)

79. The private land mobile community indicated that dramatic recent growth has been experienced in stations authorized, particularly in major urbanized areas, projected similar growth into the future, and identified new uses for communications beyond existing applications. It contends that growth would have to be met by recently made 900 MHz allocations, the 902–928 MHz band, the 952–960 MHz band, and some amount of spectrum (between 102 and 174 MHz) out of the remaining UHF-TV bands between 512 and 806 MHz. Therefore, the private land mobile community recommended a co-equal Mobile and Broadcasting allocation between 470 and 806 MHz to provide flexibility in the international table of allocations and to permit flexibility to leave domestic UHF-TV allocations intact to the degree that is necessary. Thus, domestic decisions would be made in accordance with our own needs and priorities.

80. With respect to the band 902–928 MHz, Hazletine Corporation opposed introduction of Amateur and Mobile services on the basis that such action could discourage development of the band for the primary Radiolocation service.[3] A proposal of flexibility in the international table is the more important goal and future domestic rule making will address the specific services in accordance with long-term needs and priorities, if the proposal is adopted at the 1979 WARC. We further note that there are also national Radiolocation requirements, on a continuing basis, in this band on a primary basis.

81. The Private Land Mobile SWG supported our proposal to identify spectrum below 1 GHz to accommodate mobile satellite uses but opposed such use in the band 806–890 MHz which is the home for future terrestrial land mobile systems. AT&T opposed the proposal on the basis that no new unique service is proposed which could not be performed by Land, Aeronautical, or Maritime Mobile-Satellite services, for which there are already frequency allocations, and that fundamental sharing problems when one or both sharing services are mobile have not been addressed. General Electric and the Domestic Public Land Mobile SWG opposed the proposed footnote 329B and

[3] In this connection, national rules provide for Automatic Vehicle Monitoring (AVM) operations subject to not causing harmful interference to government stations and accepting interference from ISM devices and government stations authorized in the band.

stated that space radiocommunications in this band would limit spectrum use efficiency by the inability to re-use channels on a geographic basis to the same extent as terrestrial systems; thus, the objectives of Docket No. 18262 would not be realized. COMSAT General supported the footnote or specific allocations. We are proposing to keep the footnote at this time, to be consistent with our goal of flexibility and to provide for future planning. However, comments are invited from interested parties as to the nature of services which could be provided (*e.g.*, is it confined to land mobile users or are small fixed stations or other mobile users to be served); why such services could not be accommodated in specific service allocations elsewhere, and if the footnote should be proposed in another frequency band, what band? Further, what practical coordination problems may exist with terrestrial users and how may these be minimized? Comments on these issues are requested.

Maritime Mobile

82. In the Third Notice we indicated that little hope existed to statisfy existing requirements on Appendix 18 frequencies and that inadequate spectrum is available for growth between 150 and 174 MHz. Comments received in response to our Third Notice confirm that long-term maritime requirements are such that they could not be satisfied on VHF frequencies even if all Appendix 18 frequencies were made available. However, the maritime community still requested deletion of those portions of footnote 287 which permit administrations to make assignments to other services, in order to provide full use of Appendix 18 frequencies to meet immediate maritime needs not presently satisfied and to conform with internationally agreed use. While comments provided by the American Association of Railroads strongly opposed deletion of footnote 287 on the basis that such action would have consequences endangering the operations and safety of the entire railroad industry, the Associated Public Safety Communications Officers, Inc. stated that if the Commission determines to recommend deletion of footnote 287 and if it is accepted by the WARC, then displacement of public safety licensees should be accomplished over a period of at least seven years from the effective date of the international decision. Only 4 frequencies representing less than 5 percent of police VHF frequencies are affected, as compared to 33 frequencies representing one-third of railroad VHF frequencies, and 13 frequencies representing one-third of highway maintenance VHF frequencies. In brief, since it appears that long-term growth for maritime services, particularly public correspondence communications, cannot be met by Appendix 18 frequencies, we question how immediate needs of maritime can be met except through domestic rule making which is outside the scope of this proceeding. It appears that future growth particularly for maritime public correspondence will need to be satisfied at higher frequencies, i.e., above 400 MHz.

83. Although the maritime community agrees that the goal of flexibility in the international table is a desirable objective particularly for domestic services where control of allocations between domestic mobile services and broadcasting may be expected to be settled after WARC 79 through domestic rule making, it contends that its allocations are not necessarily controlled within the U.S. and that it is basic and essential that specific worldwide allocations be provided to permit future planning. Furthermore, specificity would preclude a situation where the U.S. is at variance with the rest of the world, a situation which presently exists on the Appendix 18 frequencies.

83A. Also in support of the effort discussed in paragraph 60 information is requested in the following areas: (1) Public coast stations operated by non-AT&T licensees are requested to furnish data concerning the following areas of their station's operation: (a) Channel occupancy during the busiest hour of an average day.

(b) Average message length (conversation time).

(c) Average set-up time (i.e., from the time the operator responds to a call, how long does it take to place the call).

(d) Number of messages handled each month for the years 1975 and 1976.

(2) In certain areas the UHF Task Force has noted that existing public correspondence channels are heavily used. In some areas it appears that assignment of additional channels could be accomplished, but have not been requested. What criteria are presently used to decide when and where to request assignment of additional channels.

(3) 1.5 MHz has been requested at UHF for on-board communications. These operations involve communications over short ranges for which higher frequencies could be substituted; however, we recognize there may be difficult technical problems associated with the development of hand-carried equipment above 1000 MHz. UHF is more useful for longer range communication with mobile units. Comments on the use of frequencies other than UHF to perform this function are needed.

(4) 3 MHz is requested for aeronautical-maritime coordinated communications. Specific data justifying this request is sought as it represents twice the VHF maritime spectrum currently allocated in the U.S.

(5) Use of maritime frequencies on board recreational craft is a national rather than an international concern. Many recreational boaters presently use Citizens Band (CB) equipment rather than VHF maritime equipment. Comments are requested recommending alternatives looking towards solution of the recreational boaters communication requirement with an allocation similar to CB but with consideration given to the distress function.

(6) Specific data should also be furnished to justify the spectrum requests for vessel traffic services (0.2 MHz), ship-to-shore radiotelephony (0.75 Mhz) and radiotelegraphy (0.6 MHz).

Mobile (Personal Radio)

84. In the Third Notice a Mobile allocation was proposed in the bands 220–225 MHz and 890–947 MHz, to provide future flexibility for the introduction of mobile operations.

85. Comments by Amateurs and the television industry opposed the Mobile allocation at 220–225 MHz, anticipating personal radio use in the band, and thus, intolerable interference to existing operations. Amateurs and the TV industry suggested that 900 MHz should be the future home for personal radio users.

86. We believe that it is premature at this point to discuss spectrum to be allocated to domestic mobile services since such discussions prejudge the outcome of the WARC–79 Conference and domestic allocation proceedings likely to occur after WARC–79. Flexibility to plan for future needs is the more important goal; thus, we are proposing to maintain the mobile allocations in Region 2.

Radioastronomy, ISM, Fixed

87. We are unable to propose an allocation for Radioastronomy use at 150–153 MHz, or to propose a shift in the Amateur Satellite allocation at 435–438 MHz to the 447–450 MHz band. Heavy land mobile use of the 150–153 MHz will continue to prevent any protection to radioastronomy at 150–153 MHz. The Amateur Satellite allocation is discussed elsewhere.

88. With respect to the ISM allocation at 915 MHz, the ISM Community supports the proposal to expand existing ISM bands worldwide by introducing footnote 340 into Regions 1 and 3.

89. The Private microwave community opposed our proposal to introduce the Mobile service into the band 952–960 MHz on the basis that microwave stations are expected to grow from 2600 at present to 6700 by the year 2000. We are proposing to maintain the co-equal Fixed and Mobile allocation to be consistent with our flexibility approach. If such a proposal is accepted by the 1979 WARC, domestic rulemaking would be required to determine which frequencies would be available and for what service or services.

Spectrum Between 1215 MHz and 10.7 GHz

The Use of ISM Frequencies and Wireless Transmission of Power

90. Considerable information has been received concerning the expansion of industrial electronics. Several comments have suggested that the ISM bands be harmonically related and that the existing 5800 MHz allocation be changed. Study of this matter, however, suggests that this could be unreasonably disruptive of existing arrangements and our present thinking is, therefore, to retain existing bands.

91. With regard to the wireless transmission of power, this is seen as an entirely different problem, not in any way

related to ISM matters. One form of the wireless transmission of power is the concept of a Satellite Solar Power System (SSPS), and a footnote has been proposed looking toward the accommodation of such a system. Several parties have adversely commented on the proposed footnoted frequency allocation to the Solar Satellite Power System (SSPS) use. In view of its technical complexity, possible impact on other services, and significance of technological concepts, the following information is provided.

92. The operational SSPS has been proposed to contain a space station in the geostationary orbit where the solar energy will be converted to dc using either the photovoltaic effect of the silicon solar cell or a heat engine generating electricity. For an SSPS delivering about 5000 MW of dc power, two solar panels, each one having a dimention of 5.2 km by 4.33 km [4] would be required. The maximum theoretical efficiency of silicon solar cells is about 20 percent while the efficiency practically obtained is about 11 percent. The currently expected lifetime, which is influenced by the environment, is about 10 years. Solar radiation damage causes a logarithmic decay of solar cell effectiveness. Research on radiation-resistant solar cells is in progress which is predicted [4] to result in a life-expectancy of 30 years.

93. The dc generated at the space station is fed to a microwave generator whose design is based on the principle of either a cross-field amplifier (CFA) device or a klystron. The output of each individual tube could range from 2 to 5 kW. It has been projected that about 1 million or more tubes would be needed for each SSPS, and the total radiation contemplated is on the order of 5–10 gigawatts.

94. For a 1 km diameter transmitting phased array antenna having a gaussian distribution in the beam, the diameter of the receiving antenna would be about 7 km for interception of 90 percent of the transmitted energy. Depending on the design, the received microwave density levels could vary from about 100 mW/cm^2 at the center to about 0.1 mW/cm^2 at a distance of 13 km from the center of the received beam.[4] The direction of the transmitted beam is proposed to be accurately controlled by a pilot signal transmitted from the center of the receiving area. The optimum frequency of operation is stated [4] to be between 2 and 4 GHz, and fundamental frequencies of 2450 and 5800 MHz have been proposed for this service.

95. The receiving antenna would intercept, collect and rectify the microwave energy into dc which could be transmitted as dc or as ac after suitable conversion. Distributed half-wave dipole antennas and Schottky barrier diodes are proposed to respectively receive and rectify the microwave energy. The receiving antenna element spacing is proposed to be 0.6 times the operating wavelength requiring a total of 14 billion elements.

96. As ninety percent of the SSPS energy will be confined to a beam of about 0.01 degree in diameter, an antenna pointing accuracy of about a tenth of the beam width or 0.001 degree could, then, be required. We consider it premature to speculate on the feasibility of practically achieving this order of antenna pointing accuracy.

97. The peak noise power of CFA is predicted to be 85 dB/MHz below the fundamental. The noise power can be reduced by introducing a filter between each generator and the antenna with a predicated [4] 6 dB attenuation per octave (of 50 MHz) per section.

98. The U.S. International Radio Consultative Committee Study Group draft paper 2/302 states that a 5 cavity Klystron envisaged for use with the SSPS would provide 120 db attenuation at a distance of 50 MHz from the center frequency, thereby providing a 26 db margin from a single SSPS above the ITU power flux density (PFD) limit of $-154dBW/m^2/4kHz$, although this is still above the limit required for Radio Astronomy Service.

99. The energy from the different CFA tubes is additive at the operating frequency and is focused in the main beam of the phased array. However, we consider it premature to speculate on the performance of the phased array outside the operating band and at the harmonic frequencies. In addition to the modification of the footnote 357A proposed by AT&T, it could be specified that the radiation from the SSPS shall meet all the ITU PFD regulations outside the occupied bandwidth of the SSPS, and that the energy from the SSPS shall be attenuated by specified amounts outside the occupied bandwidth, and that the occupied bandwidth shall be 5 MHz.

100. The projected cost of SSPS power (5 gigawatt unit) at the bus bar, for an operational life of about 30 years, is estimated [4] to be 2.7 cents per kWh. For an operational life of 10 years, the cost of SSPS power could increase to 8.1 cents per kWh. The projected costs of power from terrestrial solar plants (100–150 MWe) i.e. non-tracking flat plate, 2-D, brayton, steam, chemical, central receiver and photovoltaic are estimated [4] to be 9.7, 8.6, 7.3, 5.5, 5.7, 4.6 and 8.6 cents per kWh respectively.

101. The optimistic launch data for an operational SSPS is 1995 although there are many technical uncertainties in the program.

102. There are several areas of concern as they relate to the possibility of interference or biological damage. For the present footnote 357A has been modified accordingly.

103. These problem areas are itemized below. (1) The possibility of interference associated with out-of-band radiation. This consists of 3 principal components: (a) Harmonics of the fundamental frequency; (b) Noise spectrum associated with each component of (a); (c) Spurious signals.

(2) Scattering and other phenomena in the ionosphere and upper atmosphere which could possibly result in crossmodulation with other carriers, or widespread interference fields.

(3) Phase fluctuations on the received signals and its harmonics due to corresponding fluctuations in the refractive index. Such fluctuations could produce an intrinsic noise spectrum due to the associated phase modulation of the received signal.

(4) Area coverage problems associated with the severe pointing accuracy and side lobe requirements of the main beam. The U.S. International Radio Consultative Committee Study Group draft paper 2/302 indicates a sidelobe level of −25 dB (referred to the peak radiation) which represents a fundamental radiation density of about 0.3 mW/cm^2 at a distance of 7km from the center of the receiving antenna. We are not certain as to the practically achievable sidelobe level from a 1 km diameter phased array.

(5) Physical effects in the upper atmosphere which may be associated with such high flux densities and are ordinarily of no consequence but which may result in hitherto unsuspected sources of interference.

(6) Biological and ecological hazards due to the radiation levels contemplated both on the earth's surface and throughout the world's atmosphere, particularly relating to aircraft in flight.

104. We are soliciting detailed and explicit comments on each of the problem areas outlined above, so that appropriate allocations and guard bands can be structured.

Radio Astronomy

105. Two bands connected with radio astronomy remain as serious problem areas. The first of these is the band 1370–1400 MHz. The RA service views this band as one of its highest priorities since observations of the hydrogen line are related to critical studies of the universe. At present, RA use of this band is covered only by footnote 349A, and its importance is felt by RA to justify exclusive use of the band. At present this band is allocated in Region 2 to the Radiolocation Service, and is utilized to satisfy national requirements. At present, the request of the RA service is being intensively studied, however, a resolution has not been forthcoming at the time of writing.

106. The second problem area is in the 2670–2690 MHz band. The proposed exclusion of the Broadcasting Satellite Service from this band as suggested in the 3rd NOI was met with very strong opposition. The Broadcasting Satellite Service has severe demands for growth and urgently needs this spectrum. The RA group on the other hand indicates that a CCIR limit for interference in this band has already been developed and should serve as a guide for sharing. However, this limit would certainly preclude

[4] Solar Satellite Power System Concepts, Hearing before the Subcommittee on Space Science and Applications and the Subcommittee on Energy Research, Development and Demonstration of the Committee on Science and Technology, U.S. House of Representatives, Ninety Fourth Congress Second Session, February 20, 1976, (No. 67).

satellite service operating in real time since the limit is established by virtue of the integration time permissible with RA observations.

107. The RA service has pointed out that a 1 percent bandwidth is required for observation in the 3 GHz region, the 2670–2690 slot being the most promising choice. We have looked at other options in this region. However, the interference level to be expected from existing services would be too great, or the restrictions on these services necessary to obtain the required protection would be too great. We are therefore unable to resolve this dilemna without further suggestions from the parties concerned. These should resolve the following: (1) Is it possible for the Broadcasting Satellite Service to meet the required RA interference criteria or relinquish spectrum in areas where astronomers are making continuum observations. Alternatively, are there any possibilities whereby effective sharing criteria (time technology area, etc.), regardless of determinants, can be developed; (2) The band 3325–3355 MHz, where discrete observations are currently being made appears to be the next most obvious choice. The allocation of this portion of the spectrum to Radioastronomy was suggested by the PSSC in lieu of the present allocation at 2690–2700 MHz.

Continuum measurements require determination of interference and sharing criteria. What measures can be proposed by the services occupying this band so that effective use by the RA service can be obtained. We seek the ideas of all parties concerned, to solve this sharing problem. (3) Are there other alternatives which might be addressed which would permit the RA service to obtain a 1 percent continuum band for its observations, and share this effectively with other services.

108. Until this problem is resolved, we are proposing to maintain both the Broadcasting Satellite and Radio Astronomy Services in the band 2670–2690 MHz.

Fixed-Satellite Service

109. Since the 3rd NOI, considerable effort has gone into attempting to provide additional spectrum space for this service. Problems still remain formidable, and efforts continue to obtain bandwidths in spectrum also required for other national needs. Whatever decisions are finally made, it is evident that highly coordinated sharing criteria will pertain. The options still remain as outlined in the 3rd NOI.

110. We recognize that highly coordinated sharing criteria will need to be developed if the Fixed-Satellite Service is to successfully share the 3400–3700 MHz, 4400–4700 MHz, and 5725–5925 MHz bands with other services which are required to satisfy other national needs. In response to the Third Notice of Inquiry, several parties requested further details with respect to the proposed addition of Aeronautical Radionavigation in the band 3500–3700 MHz. This band is intended for use, inter alia, by ground based airport surveillance radars and this addition would provide international recognition and protection of a service which has already been allocated domestically. There are probably similar questions regarding sharing in the other bands referenced above. Recognizing that any sort of meaningful evaluation of this problem would be impossible without a better understanding of the proposed uses for these bands, we have been provided with an independent analysis of the problems of sharing these bands between the Fixed-Satellite Service and the other services having requirements therein. This analysis is attached to this Notice of Inquiry as Appendix 5 and highlights the complexity and difficulties of sharing in these bands. (Appendix 5 supplied by the Executive Branch.)

111. The principal difficulty with the 6425–6925 MHz band occurs at the two ends; above 6875 MHz the band is used by the Auxiliary Broadcast (mobile) service; while from 6425–6575 MHz, it is used in a similar fashion by other mobile services. Sharing in these portions of the band, if actually possible, can only be accomplished under carefully defined conditions, and at this juncture there is not agreement on what these conditions should be. We therefore seek advice as to the definition of specific criteria for such sharing. The alternative would be, of course, to relinquish the top 50 MHz and the bottom 150 MHz of this spectrum.

112. The proposed companion band (down link) of 4400–4900 is a currently heavily used band, and again, sharing if feasible at all, would require special criteria. The more basic question then is this—if it is not possible to use the 4400–4900 band, what should be paired with the proposed 6425–6925 band? Alternatively, would it be preferable to dispense with this proposal, and aim rather toward expansion near the existing 4 and 6 GHz bands? The use of these bands has demonstrated the feasibility of sharing in already heavily congested portions of the spectrum. The fact that this has proven successful would seem to suggest that a combination of ingenuity and inventiveness might be used to develop criteria for those other portions of the spectrum under discussion here. In making such comments it is recognized that the nature of the services which have successfully shared these bands (existing at 4 and 6 GHz) lends them to such sharing. Much greater problems exist in other bands proposed due to different kinds of services already in occupancy, and in the case of mobile, there can be no doubt that sharing problems may be almost insurmountable. Nevertheless, we would urge both the present users of the various bands suggested, and also the Fixed-Satellite service, to view the total situation in terms of solutions rather than problems. The logical extensions of the 4 and 6 GHz bands would be in the 3.4–3.7 GHz, and 5.625–5.925 GHz bands as originally suggested in the Third NOI. At this juncture, the maximum bandwidths (in each of these bands) that appear feasible to share with existing services is quite limited. As yet it is not clear whether any part of the 4.4–4.9 GHz spectrum could readily be shared. The questions are two fold: (1) are such small bandwidths of value, considering that difficult sharing criteria would certainly be necessary; and (2) can special criteria be established which could, as a practical matter, permit sharing more of the spectrum? The problems therefore resolve to the following:

(1) What are the real needs of the service in terms of continuous and contiguous bands?

(2) Is it possible, given conditions of use, geographical location, power, probability of service, power modulation, and/or any other criteria, that sharing criteria can be developed where they do not presently exist? We submit this is the critical question before all users. The many comments and reports in connection with this matter reflect the desperate need of all services. It is evident that partnerships previously considered impossible are going to have to evolve in order to bring any degree of satisfaction to all those who need and demand spectrum.

(3) What are the band options, in terms of preference, that the Fixed-Satellite service should address most vigorously, so that criteria can be developed in terms of priority?

113. In view of the foregoing comments, we have tentatively suggested the following: (1) The band 6425–6925 MHz be used for the up link, (as in the 3rd NOI) recognizing the need to develop explicit sharing criteria with the mobile services.

(2) The down link be split into two bands (a) 3400–3700 MHz and (b) 5725–5925 MHz recognizing the need to develop appropriate sharing criteria with existing services in these bands.

114. We solicit comments with respect to these choices, taking into account the foregoing statements. The problems inherent in these choices are formidable and are at present unresolved and we therefore seek information which will aid us in providing the Fixed-Satellite service with needed spectrum. It should be further pointed out that the Broadcasting-Satellite service has requested use of the 3400–3700 MHz band also, and this of course further exacerbates the sharing problem. This request for access to the 3400–3700 MHz band by the Broadcasting-Satellite Service was not known to the authors of the sharing analysis performed in Appendix 5 prior to its completion, and therefore no analysis is available with respect to the Broadcasting-Satellite Service. It can be assumed, however, that due to the special characteristics of the Broadcasting-Satellite Service, the sharing problems foreseen will be even more severe than for the Fixed-Satellite Service. We solicit comments as to how the Broadcasting-Satellite Service also might be accommodated in some useful fashion.

Broadcasting-Satellite Service

115. The Broadcasting-Satellite Service Working Group has asked for the rentention of the 2500–2690 MHz band, as well as expansion into certain other bands. The 2670–2690 MHz portion of the above band was proposed, in the Third

Notice of Inquiry, for reallocation to the Radio Astronomy Service. However, in view of the strong opposition demonstrated by certain parties to this proceeding, as well as alternative proposals put forth, this question is still very much open for discussion. Until this problem is resolved, we are proposing to maintain both the Broadcasting-Satellite and Radio Astronomy Services in the band 2670–2690 MHz. Reference should be made to the section on Radio Astronomy for a more detailed discussion on this item.

116. The band 2300–2500 MHz has been suggested as an additional allocation to the Broadcasting-Satellite service. The proposed table does not reflect this service, but the problem must be addressed before the allocations can be finalized. Existing services have indicated serious opposition to this proposal. Attention should also be drawn to the fact that this band is also allocated for ISM use and we have proposed a footnote which would provide for the wireless transmission of power from space at 2450 MHz. However, the fact that the Broadcasting-Satellite Service is not shown in any part of this band in the current table is not intended to mean that consideration of its sharing in the band has been eliminated.

117. There has also been a request for Broadcasting-Satellite Service access to the 3400–3700 MHz band. Use of this band for satellite service has been discussed under the Fixed-Satellite Service, which is presently allocated internationally in this band. Conditions for the shared use by both the Broadcasting-Satellite and Fixed-Satellite Services, along wtih existing services, present serious problems and comments are solicited in this respect.

Aeronautical Mobile Satellite Service

118. In response to the Commission's request for comments on the general philosophy proposed by the Aviation SWG that space applications are merely extensions of the aeronautical terrestrial services, and thus should not be accorded separate status, COMSAT General states that the philosophy was rejected at the 1971 WARC and has not been advanced by other SWG's in preparing for the 1979 WARC. While we believe that the aviation philosophy may be useful in existing exclusive aeronautical terrestrial allocations, there are no compelling reasons to eliminate the specific allocations to Aeronautical Satellite Services in the bands 1542.5–1558.5 MHz and 1644–1660 MHz.

119. With respect to these allocations, the aviation community has requested maintaining them for aeronautical mobile-satellite (R) use. We note that no specific justification has been advanced ot maintain 30 MHz for the exclusive use of the Aeronautical Mobile Satellite Service. There is a lack of U.S. air carrier interest in the experiment, hence, comments are requested as to whether or not the aviation requirements for 15 MHz in each direction, which were presented by the U.S. at the 1971 Space WARC, are still valid.

120. On the other hand, there is allocated a total of 15 MHz for the exclusive use of the Maritime Mobile Satellite Service and we have received extensive requirements of need for approximately 25 MHz beyond existing allocations. The Maritime SWG states that the operation of MARISAT has opened up new applications stemming from marine seismic and drilling communications requirements; that the potential airplane market is considerably less than the ship market for an international satellite system; that a convention and operating agreement on the INMARSAT Organization have been opened for signature and will likely provide a single international system during the next several years to serve ships and structures operating in the marine environment; and that if additional allocations are not provided, it is likely that service to some users may not be able to be offered. All of these these factors imply more vigorous interest for the maritime satellite service and the need for a reallocation of the bands between 1535 and 1660 MHz to more accurately reflect the needs of the two services. In this connection, COMSAT General states that a portion of the 1558.5–1636.5 MHz band can be allocated to the Maritime Satellite Service since requirements of the new Aeronautical Radionavigation Satellite Service between 1595 and 1636.5 MHz can be satisfied in existing Aeronautical Mobile Satellite (R) Service frequency allocations intended to encompass domestic and international air traffic control as well as operational control. The Maritime SWG suggests expanding the 1 MHz shared Aeronautical/Maritime Mobile Satellite bands at 1542.5–1543.5 MHz and 1644–1645 MHz by 6 MHz each into the Aeronautical Mobile Satellite bands, thereby providing flexibility needed for development of either service or for a cooperative venture. Comments are requested as to which portions of the bands 1535 to 1660 MHz if any, should be reallocated for Maritime Satellite Service use or shared with Aeronautical Satellite Services. We address separately the frequency bands between earth stations at fixed points and satellites.

121. In considering the shared use of these allocations between the aviation and maritime communities, merit was seen in the possible shared use of these bands for coordinated distress and safety operations. Consequently, we propose the addition of a new footnote 352L which reads, "In the frequency bands 1542.5–1543.5 MHz and 1644–1645 MHz distress and safety operations of the Maritime-Mobile Satellite and the Aeronautical-Mobile Satellite Services shall be given priority".

Maritime Services

122. While spectrum within the existing 500 MHz of allocations in the Fixed Satellite Service (e.g., at 6/4 GHz and 15/11 GHz) will continue to be needed to meet estimated requirements for maritime communications between satellite and land, it appears that projected non-Maritime growth is expected to exceed these allocations. Whether or not this occurs, existing spectrum and any additional allocations provided for the Fixed Satellite Service must include uplink and downlink provisions for maritime users (i.e., about 16 MHz uplink and 24 MHz downlink).

123. As the use of the maritime satellite service grows, it will become increasingly desirable to provide shore and satellite frequencies which do not have to be coordinated with the fixed satellite services. One way to accomplish this would be through the use of a footnote to existing allocations. One precedent for this was set by aeronautical interests with the addition of footnote 383B to the 5000 MHz to 5250 MHz band. However, it is noted that the bands 2900–3100 MHz and 5460–5600 MHz are extensively used by high power fixed and mobile radars for Radionavigation and Radiolocation functions. Furthermore, specifics concerning the use of frequencies within these bands by radar systems is not readily available due to established practice of granting band assignments. Therefore, considering the electromagnetic environment, the usefulness of the proposed footnote 367C is questionable unless the establishment of international regulatory changes concerning modification of existing radar systems and assignment processes are proposed and accepted. It may be preferable to find a more suitable band for the Fixed Satellite Service than to proceed with this approach. A footnote 367C for the required Maritime bands has been added and comments are requested. As an alternative, should the footnote be proposed for the band 5000 to 5250 MHz to provide for the maritime frequencies? Such proposal might provide flexibility needed for development of either mobile-satellite service or for a cooperative venture.

124. We have proposed use of the band 1710–1720 MHz from space stations to ship earth stations. However, comments indicate that communications needs will be greater in the ship to shore direction. Thus, we propose an additional allocation of the band 1970–1990 MHz for Maritime Mobile Satellite Service use.

125. The remainder of Maritime Mobile Satellite Service projected spectrum needs has not yet been satisfied. However, our Notice addresses this question under Aeronautical Satellite Service.

126. Provisions are proposed to be made for radar beacons and ship board transponders in the bands 2900–2920 MHz and 9300–9320 MHz and for Shipboard radars in the bands 2920–3100 MHz and 9320–9500 MHz, which were not addressed in the Commission's Third Notice. With respect to the provisions for the bands 9300–9320 MHz and 9320–9500 MHz comments are solicited concerning an appropriate mechanism to be used to accommodate maritime radar beacons and interrogator-transponders. For example, should the band be split into two portions, i.e., 9300–9320 MHz and 9320–9500 MHz? The band 9300–9320 MHz would be labelled, under Radionavigation, with "(Radar Beacons) (Shipboard

Transponders)". The band 9320–9500 MHz would be labelled, under Radionavigation, with "(Shipboard radars)". One alternative would be to accommodate the above operations through the use of footnotes. A second alternative could be to place the 20 MHz allocation referenced above for "(Radar Beacons) (Shipboard Transponders)" at the upper end of the band, i.e., at 9480–9500 MHz, with the 9300–9480 MHz portion containing the "(Shipboard radars)" designation. A third alternative would be to accommodate the requirements for shipboard transponders by footnote in the band 9480–9500 MHz which is relatively unused and to provide for fixed frequency RACONS in the 9300–9320 MHz band. This last alternative would eliminate the possibility of co-channel interference between very low powered RACONS and relatively high powered shipboard transponders. Noting that RACONS are used to mark navigational hazards and, consequently, interference to these devices could result in the loss of life and property, and significant environmental damage. Separate allocation provisions for shipboard radars in the bands 2920–3100 MHz and 9320–9500 MHz may not be required as these bands already allocated to the Radionavigation Service on a primary basis.

Additionally, it is important to note that frequency support for land/coast based radars used for maritime radionavigation purposes in these bands is a continuing requirement and would be prohibited only if the use of shipboard radars is permitted. There also appears to be an inconsistency between the proposal for shipboard transponders in the 2900–2920 MHz band and the existing footnote 367A. Comments are requested concerning resolution of this problem. One final point to be considered is the fact that within the band 9300–9480 MHz, the frequencies 9345 MHz and 9375 MHz are extensively used for airborne weather radars.

127. Comments are requested concerning how to satisfy the recognized requirement for radar beacons and shipboard transponders in this frequency range.

128. We have received a request for the establishment of a new international footnote RR404c for the band 10.55–10.68 GHz, to read as follows: "Operations of the Maritime Mobile Service using this band for safety of shipmovement by telemetry, data exchange and telecommand systems shall be protected from harmful interference in areas of inland waterways, ports, and coastal zones." The proposed footnote RR404c, will clearly establish and provide regulatory protection against harmful interference for future maritime mobile telecommunications pertaining to safety of ship movement. In addition, it provides for maritime communication systems needed to enhance the protection of life, property and the environment, e.g., future collision avoidance systems, tug-tow telemetry/telecommand systems and ship-shore interface communications for handling dangerous cargos.

Amateur Service

129. In the 1215–1240 MHz band, the needs of the Radio Navigation Satellite Service, inview of its safety of life feature has been regarded as of paramount importance; consequently, amateur usage in this band has been proposed for deletion. With respect to the 10–10.5 GHz band, comments in response to the Third Notice of Inquiry expressed a desire to include Amateur Satellite Service in this band. We have carefully examined this request and have concluded that due to the extensive use and particular types of radars in this band, sharing with the Amateur-Satellite Service is impractical.

130. In the 2300–2400 MHz band, the Third Notice of Inquiry proposed allocating 10 MHz (2310–2320 MHz) for satellite service. This conflicts with mobile service requirements. Consequently, a band for Amateur Satellite use is proposed at the top end of this portion of the spectrum, 2390–2400 MHz. This should better serve amateur needs and should also be compatible with the other services making use of this part of the band.

Additional Requirements

131. Several bands have not been addressed specifically, but do require consideration. They are:

(1) 2025–2110 MHz: This band is currently used to meet mobile requirements, and is also used under footnotes 356AB and 356ABA for space applications. The proposal here is to upgrade these footnotes to a primary status in the Table. These footnotes allow operation by the Space Research and Earth Exploration Satellite Services, in the Earth-to-Space direction. Space-to-Space links are also contemplated in the Space Research Service. Space-to-Space transmissions are required by the international Radio Regulations to adhere to a power flux density limit for any transmission reaching the Earth's surface of between –144 and –154 dBW/m² per 4 kHz of bandwidth, depending upon the angle of arrival. No significant sharing problems are anticipated.

(2) 2110–2120 MHz: This band is also currently used to meet mobile requirements, and footnote 356ABA allows operation of the Space Research Service. It is proposed to give the Space Research Service (Earth-to-Space) (Deep Space only) a primary allocation in this band. No sharing problems with the terrestrial services are anticipated.

(3) Requirement of the Aviation services at 2300 MHz: The Aerospace Radio Flight Test Radio Coordinating Council (AFTRCC) and the Aviation Services Working Group have pointed out that the frequency spectrum from 2310–2450 MHz could not be used completely inasmuch as footnote 357A designates 2450 MHz ±50 MHz for the wireless transmission of power. (This has since been changed to 2450 MHz ±10 MHz) They propose instead that the spectrum from 2300–2390 MHz be designated for aeronautical telemetry with Radiolocation, Amateur, Amateur-Satellite, Fixed, and Mobile accommodated in the band 2390–2450 MHz. We have in large part satisfied this requirement. We have proposed the upgrading of the Mobile allocation in the 2310–2390 MHz band and proposed footnote 349C to provide that the primary use of the mobile service in this band is to aeronautical mobile for telemetering purposes. It should be noted that we have retained the Radiolocation Service as a primary service. Experience has demonstrated that with the intensive scheduling which can be accomplished in the field, these two services can share the band on a co-equal, primary basis.

SPECTRUM ABOVE 10.7 GHZ

Aeronautical Mobile/Aeronautical Mobile-Satellite

132. ARING and ATA stated that "* * * the bands above 40 GHz allocated jointly to the Aeronautical and Maritime Services should be split into separate and distinct services * * *." They stated (1) that the Aeronautical Service is a safety service precluding sharing of common bands, (2) that there is a dissimilarity of disciplines between the Aeronautical and Maritime Services and (3) that the "provision of shared bands may well lead to the development of incompatible systems for aeronautical and maritime * * *." In the Frequency Allocations Table, RTCA separated the Aeronautical and the Maritime services. AOPA supported the submission of RTCA. However, RTCM supported the shared allocations.

133. There are various uncertainties in these frequency bands. The Aeronautical Mobile-Satellite (AEROSAT) experimental program is under development while the MARISAT has recently started providing operational service, both in the 1.5/1.6 GHz bands. No evidence has been submitted indicating that the development in the frequency bands above 40 GHz will take place in the foreseeable future. The requirements of the Aeronautical and the Maritime services are not known, making a logical apportionment of frequency bands between the two services difficult. It also appears that no irreparable harm will be done in retaining the shared allocations at the present time. Because of the Commission's participation in the RTCA and the RTCM it is unlikely as stated in the comments of ARINC, that "* * * the development of incompatible systems for aeronautical and maritime * * *" services would take place. The bandwidth of each of the shared allocations is more than the combined identifiable needs of the Maritime and the Aeronautical Services. We believe that the fear of any incompatibility and

[8] In the band 5000 to 5250 MHz frequencies between 5000.4 and 5020.1 MHz and between 5023.1 and 5033.1 MHz are planned to be used for Aerosat links from fixed stations to satellites; frequencies between 5232.2 and 5246.6 MHz and between 5209.3 and 5230.7 MHz are planned to be used from satellites to fixed stations.

the thesis put forth by ARINC that each service "* * * would require the full shared allocation * * *" are, at present, unfounded. Considering all the factors, we are retaining the shared allocations to the Aeronautical and the Maritime Mobile Services above 40 GHz, except for the 190–200 GHz band as mentioned in the Third Notice of Inquiry.

134. ARINC, ATA and RTCA recommended that the Aeronautical Mobile-Satellite service should be deleted and a footnote should provide for the use of space techniques in the Aeronautical Mobile service because a separate Aeronautical Mobile-Satellite service (1) "* * * is unwiedly (sic) from the frequency management and operational view points", and (2) imposes constraints regarding the need to develop separate coordination and registration procedures as distinct from the terrestrial service. AOPA supported the position of RTCA. COMSAT General opposed the proposal.

135. At present, there are many uncertainties surrounding the 1.5/1.6 GHz bands proposed for the AEROSAT experimental program. We are not aware of any terrestrial use of these frequency bands other than altimeters. Above 40 GHz, the frequencies are being allocated co-equally with the terrestrial and the satellite services providing flexibility of the use, if needed, of the same frequency for the terrestrial and space services. However, co-ordination with Maritime services would be required because the frequency bands are shared. Considering all the factors, we are proposing to retain the satellite services.

136. At the request of the proponents of the Aeronautical Mobile and the Aeronautical Mobile-Satellite services, the Route designator (R) was applied to the frequencies above 40 GHz allocated to them. In paragraph 113 of the Third Notice of Inquiry, the Commission specifically requested technical justification for the necessity of the Route or "R" designator. In the absence of any such justification, the "R" designator is being deleted.

Industrial, Scientific and Medical

137. Litton and Raytheon supported the proposals of the International Microwave Power Institute for ISM allocations which was provided through appropriate footnote; however, AT&T has opposed the proposal of footnote 410E, to permit the use of industrial, scientific and medical (ISM) radiators on 55 GHz±250 MHz because "* * * it would divide the breadth of contiguous bandwidth which makes the 54.25–58.2 GHz particularly attractive to common carriers."

This frequency band is attractive because, according to AT&T, it lies at the lower end of the 40–300 GHz range but is high enough to offer practically all the advantages of compactness of equipment, and because the technology developed now and in future for use of the band 59–64 GHz could be usable on it. AT&T suggested the use of a frequency near maximum oxygen resonance such as 60.2 GHz. The 25th harmonic of 2450 MHz, the frequency proposed to be used for Solar Satellite Power System (SSPS), is 61.25 GHz. We are proposing to reallocate the ISM emission from 55 GHz to 61.25 GHz±250 MHz.

Amateur/Amateur Satellite

138. The Amateurs generally supported the proposed allocations; however, a number of respondents urged us to make the 48–50 GHz band available to the Amateur and Amateur Satellite services. This band has been allocated to "safety of life" services, due to a re-alignment of the Table of Allocations to accommodate additional spectrum required for the Fixed-Satellite and Mobile-Satellite Services. For this reason, we are proposing to allocate the 49.8–50 GHz band to the amateur services.

Broadcasting

139. The Television Broadcasting Service Working Group reiterated its belief "* * * that the Broadcasting allocation should be retained * * *" in the 11.7–12.2 GHz band. We discussed this topic and rejected this proposal in paragraph 117 of the Third Notice of Inquiry in this docket. Since no new arguments have been put forth, our proposal remains unchanged.

Intersatellite

140. At the request of COMSAT, which was supported by AT&T, we are proposing to allocate the 21.4–21.7 GHz band in addition to the 22.7–23 GHz band to the Inter-Satellite service for providing simultaneous communications link in both directions. In paragraph 129 of the Third Notice of Inquiry, we invited information as to how these Inter-Satellite bands would be used in conjunction with foreseeable systems and discussion as to the reason for these two specific frequency bands. If no such justification is received, then we may be pressed to make these frequencies available to other services, with the subsequent deletion of the Intersatellite service from the Table.

Broadcasting-Satellite

141. The City College of the City University of New York (CUNY), JCET and CPB have requested that the 12.2–12.5 GHz band be allocated to the Broadcasting Satellite service in Region 2.

142. We have not made any assumption "* * * of equal channel distribution among all Region 2 countries * * *" as attributed to us by CUNY. If all community reception channels are assumed, as suggested by JCET and CUNY, then 3528 channels are projected from the Joint Industry Government Committee (JI/GC) Group B report for a 75% Broadcasting-Satellite case satisfying 2450 TV channels "market estimate" submitted by the Broadcasting-Satellite service working group. Even for a 50% Broadcasting-Satellite case, 2358 community reception channels are projected by the JI/GC report. The Broadcasting-Satellite working group originally postulated a 25% Broadcasting-Satellite case providing 1188 community reception channels and 131 Fixed-Satellites. We believe that this apportionment of the orbital arc between the two services is unrealistic because that number of satellites would provide an inordinately large number of channels, far in excess of foreseeable requirements in the 11.7–12.2 GHz band, for the Fixed-Satellite service. We used a cross-polarization system because that is more efficient and because its use was recommended by the JI/GC Group B.

143. No economic analysis has so far been submitted to us regarding the outlay and its sources for realizing the "market estimates" submitted. Because of the uncertainties associated with the forecasting of channels for social services, we are tentatively allocating the 12.2–12.5 GHz band to the Broadcasting-Satellite service provided the proponents of it submit reasonable criteria for sharing it with the Fixed and the Broadcasting Services.

144. Attention is also drawn to the proposal submitted for comment in the next section of this Notice (Fixed-Satellite). This allocation proposal shows the Broadcasting-Satellite Service as the only space service allocated in the 11.7–12.2 GHz band in Region 2. Several parties commented that the capacity estimates upon which additional spectrum was being requested for the Broadcasting-Satellite Service were based on a 25% use of the orbit by Broadcasting-Satellites as opposed to a 75% use by Fixed-Satellites. We do not necessarily agree with this analysis of the percentage of the orbit which would be consumed by each of these space services; however, comments are invited in two areas; 1) the feasibility and/or desirability of the allocation listed in the following section on Fixed-Satellites and 2) based on the various requirement estimates submitted, how much "exclusive" (only space service) spectrum in this range of the frequency spectrum is necessary to meet those requirements.

Fixed-Satellite

145. AT&T has objected to the proposed allocation of the 10.7–10.95 and 11.7–11.45 GHz bands to the Fixed-Satellite service. COMSAT General, COMSAT and RCA American Communications (RCA Americom) supported the proposal. COMSAT and RCA Americom stated that a contiguous frequency band entails economy. RCA Americom advocated the allocation of the 10.7–11.7 GHz band for domestic satellite system use also. (That portion of this band currently allocated to FX/SAT is limited to international systems by a domestic footnote. No such restriction exists in the international Table.)

146. Considering all the factors, we envision that the 10.7–11.7 GHz band will be confined to international use by the Fixed-Satellite Service with about half-a-dozen high density large diameter antenna earth stations located at places (such as Etam, Andover) away from the heavily populated areas of the United States. We would propose that these limitations be included in any future rulemaking proceeding. We believe that this allocation would provide flexibility to meet our future needs.

147. In the frequency bands 11.7–12.75, COMSAT, COMSAT General and Satellite Business System (SBS) raised several issues and submitted their proposals. COMSAT stated, and COMSAT General and SBS implied, that frequency division is more efficient that orbit division; this is contrary to technical recommendations* and the United States position represented in the just concluded 1977 World Broadcasting-Satellite Administrative Radio Conference (1977 WARC). The three parties recommended that 10.7–11.2 GHz bands should be allocated, in all Regions, to accommodate the earth-to-space requirements of the Broadcasting-Satellite service.

148. However, COMSAT and COMSAT General had already proposed the allocation of this 500 MHz band to accommodate the space-to-earth requirements of the Fixed-Satellite service. AT&T, in its reply comments has stated that "Bi-directional satellite operation is fraught with serious interference and other problems which are discussed in Report 557 of the International Radio Consultative Committee".

149. The proponents of these proposals have not submitted any analysis showing that the "bi-directional", as opposed to the "uni-directional", international Fixed-Satellite allocation provides more efficient use of orbit-spectrum. The space station of a Fixed-Satellite could use an earth coverage beam. What would the co-channel interference potential be from such a Fixed-Satellite space station to an adjacent Broadcasting-Satellite space station? Further, these proposals shift the frequency sharing of the earth-to-space transmission of the Fixed- and the Broadcasting-Satellite services in the 14.0–14.5 GHz band to the frequency sharing of the space-to-earth transmissions of the Fixed-Satellite service and the earth-to-space transmissions of the Boardcasting-Satellite service in the 10.7–11.2 GHz band. The proponents have not specifically identified, outside the presumption of the 14.0–14.5 GHz band, the frequency band of the earth-to-space transmissions of the additional 300 MHz of frequency of the Broadcasting Satellite service in Region 1.

150. SBS stated that the results of the 1977 WARC "* * * makes clear that the present allocations for use of the 12 and 14 GHz bands do not provide an adequate basis for the development of multiple fixed domestic satellite systems in these bands * * *". When such analysis is submitted it will be carefully considered.

151. We are not persuaded by the arguments in making drastic changes in this portion of the Frequency Allocation Table, particularly in Regions 1 and 3. In view of the possibility of an "a priori" orbital plan for the Fixed-Satellite service in the 11.7–12.2 GHz band and in view of the uncertainties of the forthcoming Region 2 conference, we would like to know the benefits and disadvantages of the following Region 2 allocations, along the lines suggested by JCET.

11.7–12.2 GHz..	Mobile (except aeronautical mobile). Broadcasting satellite.
12.2–12.5 GHz..	Fixed. Mobile (except aeronautical mobile). Broadcasting. Fixed satellite (space to Earth).
12.5–12.75 GHz.	Fixed. Mobile (except aeronautical mobile). Fixed satellite (space to Earth).

152. In the region between 13 and 15.5 GHz, we are not able to obtain a contiguous 1 GHz uplink. The 12.75–13.25 GHz was the only available frequency band for this purpose. We are further investigating this matter. The 250 MHz imbalance can be simply eliminated by allocating only 12.75–13.00 GHz for the Fixed-Satellite service. In practical life, earth-to-space and space-to-earth links are not as closely or simply related as some proponents would like. For example, the 14 GHz band of the INTELSAT-V satellite could be connected to either the 11 GHz or 4 GHz band.

153. We deleted the direction indicators from the Fixed and the Mobile-Satellite services above 40 GHz in the 3rd Notice of Inquiry. COMSAT General commented that "... the bands should be paired in an explicit manner in order to avoid utilization problems." We are now placing direction indicators on these two services. There is some imbalance, particularly at the higher portion of the spectrum, between the space-to-earth and the earth-to-space links. We are further studying this matter.

Standard Frequency Satellite

154. The following information on the Standard Frequency-Satellite Service is provided for information.

155. The National Bureau of Standards of the Department of Commerce (on behalf of the national laboratories including the Naval Observatory, Goddard Space Flight Center, Naval Research Laboratory, Johns Hopkins University and many universities and industry laboratories engaged in the research of precision frequency and time standards) has a need to exchange frequency and time to nanosecond precision at the present time and will require picoseconds precision within the time frame of the 1979 WARC. In addition, there is a demonstrated need for the international exchange of precise time and time intervals between laboratories to a higher order than presently achievable by the transporting of atomic clocks. In fact, there are a number of international standards laboratories, such as Australia, who now cannot contribute to the determination of the international second as determined by the Bureau International de l'Heures (BIH) in Paris due to the fact that flying a clock to make comparisons requires so long a period of time that the uncertainties in the clock being flown is greater than the variation between the two standards; the time scales presently associated with the reference standards between many administrations depart from uniformity by as little as 1 nanosecond in one day.

156. The 13.4–14.0 and 20.2–21.2 GHz bands have been identified in order to utilize existing hardware developments and present technology. The up and down links require an emission bandwidth of approximately 250 MHz and a coherently related integer functional frequency relation—the one selected here is 20/29. The proposed type of modulation will be a PRN digital code spread over approximately 250 MHz. The standard frequency community is proposing to utilize spread spectrum techniques using wide bandwidths to reduce the power levels of the satellite signals at the earth's surface to levels well below the levels of signals in the other services which share the band.

157. The 26 and 30 GHz bands have been identified for future development with a bandwidth requirement of about 1.2 GHz, a coherently related integer functional frequency relation of 22/25, and capable of achieving timing precision in the picosecond range.

Mobile Satellite and Fixed Satellite

158. AT&T inquired about the necessity of allocating frequencies to be shared by Mobile-Satellite and the Fixed-Satellite Services when separate allocations are already available in the Aeronautical Mobile-Satellite, Maritime Mobile-Satellite and Fixed-Satellite Services. There are intentions to use earth stations on maritime mobile vessels, on airborne platforms, and on land (with manpack equipment, with transportable systems, and at fixed points all at the same frequency. This kind of service, at present, cannot be provided by the existing allocations.

159. Both AT&T and COMSAT expressed doubts about the feasibility of sharing between the Mobile-Satellite Service and the Fixed-Satellite and the Fixed Services. AT&T recommended that any allocation to the Mobile-Satellite Service of frequencies used by a non-mobile service should be on a secondary basis.

160. The national requirement is for a primary allocation; as such, no secondary allocation is possible.

Several papers on this topic have been, and are being, submitted to the U.S. International Radio Consultative Committee Study Group 8C. The weakest communications link could be between two mobile low gain antenna, earth stations connected through a satellite. Geostationary satellites are expected to provide the mobile services with highly reliable communications links which could support a large volume of traffic. Critical needs of users are to be satisfied, although the orbit-spectrum efficiency, using traditional measures, could appear to be "low".

161. Some experimental work has been conducted above 20 GHz. Currently, an experimental/developmental system is operating in the 36–40 GHz band. Testing to date and the empirical analyses have shown the feasibility and desirability of operating satellite systems in the higher portions of the spectrum.

*RAND Report—1463, May 1974; Santa Monica, California.

Currently, we have under evaluation and development a satellite system which will use as a basis the experimental/developmental system in the 36–40 GHz. Implementation of this follow-on system is planned in the 1980's, with a total investment of approximately $1 billion. Accordingly, requirements include a Mobile Satellite allocation for the 20.2–21.2, 30–31, 40–41, 43–45, 76–79 and 81–84 GHz bands to accommodate the above and subsequent systems.

162. Considering all the factors, the shared allocations to the Mobile-Satellite and the Fixed-Satellite Services are proposed as indicated in the Table of Allocations. Following is a listing of current requirements for allocations to the shared Mobile-Satellite and Fixed-Satellite Services above 10.7 GHz. The requirement in the 102–105 GHz band is still under consideration.

GHz	GHz
20.2–21.2	50.4–51.4
30–31	76–79
40–41	81–84
43–45	102–105

Space Research/Earth Exploration Satellite

163. The following frequencies have been identified for the passive Space Research and Earth Exploration Satellite Services in order to permit remote environmental sensing operations.

GHz	GHz
10.6–10.7	86–92
15.2–15.4	100–102
17.7–17.9	105–126
19.7–19.9	150–151
21.2–21.44	164–168
22.21–22.5	174.5–176.5
23.6–24.0	182–185
31.3–31.8	200–201.5
36–37	225–240
50.2–50.4	250–252
51.4–59.0	275–277
64–65	

164. COMSAT and COMSAT General requested information on the characteristics, parameters and the potential impact of sharing of the Space Research and the Earth Exploration Satellite Services before they could comment on the shared allocations. The parameters of passive low-orbiting radiometers are listed in Tables 1A and 1B. In some cases geostationary satellites are envisioned, however, the radiometer bandwidth and the interference threshold would be identical with those of low orbiting satellites. The results of analyses performed by NASA to determine the feasibility of the passive services sharing with the Fixed and Fixed-Satellite Services are listed in Tables 2 and 3. The e.i.r.p.'s of the Mobile Service are the same as that of the Fixed Service, however a smaller size antenna is generally expected to be used by the Mobile Service. The frequency bands 21.2–21.4, 22.21–22.25, 36–37, 50.2–50.4, 54.25–58.2, 100–101, 116–126, 150–151, 164–168, 174.5–176.5, 200–201.5, 225–227, 250–252 and 275–277 GHz are included in the proposed Table of Frequency Allocations as we are assured that no restrictions would be placed on the active services sharing with the passive radiometer services. The allocations for passive radiometers in the bands above are predicated upon the assurance of non-restricted operation of the active services.

165. In the balance of the identified frequency bands, where sharing between passive remote sensors and active services would exist, the following sharing criteria are proposed by NASA to prevent harmful interference to passive remote sensors.

166. In the band 10.6–10.7 GHz, the maximum equivalent isotropically radiated power of a station in the Fixed or Mobile service shall not exceed 35 dBW. The power delivered by a transmitter to the antenna of a station in the Fixed or Mobile service shall not exceed −3 dBW.

TABLE 1A

PASSIVE RADIOMETER PARAMETERS

FREQUENCY GHz	10.6 - 10.7	15.2 - 15.35	17.7 - 17.9	19.7 - 19.9	21.2 - 21.4	22.21- 22.5	36- 37
MEASURED PARAMETER	WATER, ICE, SNOW	WATER, RAIN	WATER	WATER SNOW, ICE	WATER	WATER VAPOR	RAIN, SNOW ICE
RANGE, DEGREES	-	-	-	-	-	-	-
SENSITIVITY δK	1	0.2, 1	0.2	0.2, 1	0.2	0.4	1
RESOLUTION Km	1 to 20	2, 1	2	1 to 20	2	2	0.2 to 2.0
INTEGRATION TIME, SECOND	.05 to .06	0.2, 0.01	0.2	0.03 to 0.2	0.2	0.02	.02 to 0.2
BANDWIDTH, MHz	90, 120	180, 195	180	120 to 210	180	405	115 to 920
SENSOR INTERFERENCE THRESHOLD dBW	-150, -155	-160, -153	-160	-160 to -152	-160	-153	-155, -145
SPACECRAFT ALTITUDE, KM	500	500	500	500	500	500	500
SPACECRAFT INCLINATION, DEGREES	70-110	70-110	70-110	70-110	70-110	70-110	70-110
SPACECRAFT ANTENNA, m	15	5	5	5	4	4	4

TABLE 1B

PASSIVE RADIOMETER PARAMETERS

FREQUENCY GHz	50.2-50.4 54.25-58.2	100-102	116-126	150-151	164-168	174.5-176, 200-201.5	225-227	250-252	275-277
MEASURED PARAMETER	ATMOSPHERIC TEMPERATURE	H_2O OZONE	ATMOSPHERIC TEMPERATURE	H_2O	CHLORINE OXIDE	H_2O	H_2O, CO OZONE	H_2O	H_2O
RANGE DEGREES	-70 to +30	-	-	-	-	-	-		-
SENSITIVITY δK	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
RESOLUTION Km	2	2	2	2	2	3	1	1	1
INTEGRATION TIME, SECOND	1	1	1	1	1	1	1	1	1
BANDWIDTH, MHz	235	1850	1850	1850	1850	1850	1850	1850	1850
SENSOR INTERFERENCE THRESHOLD dBW	-157	-150	-150	-150	-150	-150	-150	-150	-150
SPACECRAFT ALTITUDE, km	500	500	500	500	500	500	500	500	500
SPACECRAFT INCLINATION, DEGREES	70-110	70-110	70-110	70-110	70-110	70-110	70-110	70-110	70-110
SPACECRAFT ANTENNA, m	236	184	0.75X3	0.5X2.5	0.5X2.5	0.5X2	0.4X1.5	0.4X1.5	0.4X1.5

TABLE 2A

SHARING ANALYSIS: FIXED SERVICE

FREQUENCY GHz	10.6 - 10.7	15.2 ANALOG	15.35 DIGITAL	17.7 - 17.9	19.7 - 19.9	21.2 21.4	22.21 - 22.5	36 - 37
TRANSMITTER POWER, dBW	0	13	-13	-13	-13	-13	-13	-6.5
FEEDER LOSS, dB	-	-	-4	-4	-4	-4	-4	-4
ANTENNA GAIN, dBi	38	45	43.5	43.5	43.5	43.5	43.5	43.5
e.i.r.p. dBW	38	58	26.5	26.5	26.5	26.5	26.5	33
TRANSMISSION BANDWIDTH, MHz			220	220	220	220	220	220
LINK LENGTH, Km		20	10	10	10	10	10	10
ATMOSPHERIC ABSORPTION, dB HORIZONTAL	--	5.8	5.8	9	17	30	+33	18
FADE MARGIN, dB	--		45	45	45	45	45	45
RADIOMETER ANTENNA SIDELOBE EFFECTIVE AREA dBm^2	-56	-59	-59	-60	-61.4	-62	-64	-67
RECEIVED INTERFERENCE, dBW	-157	-165.6	-177.1	-181.5	-191.4	-204.5	-207.5	-191
INTERFERENCE RELATIVE TO THRESHOLD, dB	+1	+14	-18.1	-21.5	-31.4	-51.5	-54.5	+45
SHARING FEASIBILITY	YES	NO	YES	YES	YES	YES	YES	YES

TABLE 2B

SHARING ANALYSIS: FIXED SERVICE

FREQUENCY GHz	50.2 - 50.4	54.25 - 58.2	116 - 126	130 - 151	164 - 168	174.5 - 176.5	200 - 201.5	225 - 227
TRANSMITTER POWER, dBW	-7.14	6.0	-3.0	-0.2	0.3	+1.67	3.8	6.13
FEEDER LOSS, dB								
ANTENNA GAIN, dBi	43.5	41.5	45	45	45	45	45.5	45
e.i.r.p. dBW	36.2	37.5	42	44.3	45.3	46.7	49.3	51.1
TRANSMISSION BANDWIDTH, MHz	220	220	220	220	220	220	220	220
LINK LENGTH, Km	1	1	1	1	1	1	1	1
ATMOSPHERIC ABSORPTION, dB HORIZONTAL	100	100	20-100	>100	>100	> 100	> 100	> 100
FADE MARGIN, dB	45	45	45	45	45	45	45	45
RADIOMETER ANTENNA SIDELOBE EFFECTIVE AREA dBm^2	-69.4	-70.8	+2.3 (main beam)	0 (main beam)	-1 (main beam)	-1.3 (main beam)	-2.5 (main beam)	-3.7 (main beam)
RECEIVED INTERFERENCE, dBW	-272.4	-270.8	-166.7	-196.7	-195	-193.6	-192.7	-191.5
INTERFERENCE RELATIVE TO THRESHOLD, dB	-116.4	-111.8	-36.7	-46.7	-45	-44	-42	-41.5
SHARING FEASIBILITY	YES	YES	YES	YES	YES	YES	YES	YES

Table 3

SHARING ANALYSIS: FIXED-SATELLITE SERVICE

FREQUENCY GHz	17.7-17.9	19.7-19.9	150-151	164-165	225-227		
e.i.r.p. dBW	73.4	73.4	88	88	105		
FLUX AT EARTH SURFACE dBW/m^2	-88.6	-88.6	-75.0	-75.0	-58		
REFLECTIVITY FACTOR, dB	-3	-3	-3	-3	-3		
REFLECTION FROM EARTH dBW/m^2	-91.6	-91.6	-78.0	-78.0	-61		
AREA WITHIN RADIOMETER MAINLOBE dBm^2	63	63	86.7	86.7	86.7		
REFLECTED e.i.r.p., dBW	-18.6	-18.6	8.7	8.7	25.7		
SPREADING LOSS dBm^{-2}	-125	-125	-139	-139	-139		
FLUX AT RADIOMETER ANTENNA dBW/m^2	-143.6	-143.6	-130.3	-130.3	-113.3		
RADIOMETER ANTENNA AREA dBm^2	+10.5	+ 9.6	-15.7	-16	-19.8		
RECEIVED INTERFERENCE dBW	-133.1	-134	-146	-146.3	-133.1		

167. In the band 15.1–15.4 GHz, the maximum equivalent isotropically radiated power of a station in the Fixed or Mobile service shall not exceed 35 dBW. The power delivered by a transmitter to the antenna of a station in the Fixed or Mobile service shall not exceed −3 dBW.

168. In the band 17.7–17.9 GHz, the maximum equivalent isotropically radiated power of a station in the fixed or mobile service shall not exceed 40 dBW. The power delivered by a transmitter to the antenna of a station in the Fixed or Mobile service shall not exceed −3 dBW. The power flux density at the Earth's surface produced by emissions from a fixed-satellite space station for all conditions shall not exceed −109 dBW/m^2 in a 200 MHz reference band for all angles of arrival.

169. In the frequency band 19.7–19.9 GHz, the power flux density at the Earth's surface produced by emissions from a fixed-satellite space station for all conditions shall not exceed −108 dB W/m^2 in a 200 MHz reference band for all angles of arrival.

170. ARINC has opposed the addition of Space Research Service in the 14–14.3 GHz band without stating any reason. COMSAT stated that it would not oppose the allocation of the 14.4–14.5 GHz band to the Space Research Service on a permitted or secondary basis. We are modifying the allocation proposal, for these two bands, to a secondary service, subject to further evaluation.

171. AT&T has objected to the suggestion of an unrestricted Power Flux Density (PFD) in the 17.9–17.95 GHz band. AT&T believes that this unrestricted PFD would cause an excessive and intolerable time level of interference into a fixed service system at 18 GHz, such as AT&T's DR–18 terrestrial radio-relay system. Our proposal of unrestricted PFD in the 17.90–17.95 GHz band is withdrawn.

172. COMSAT commented on the inquiry about a definition of a "Space Radiolocation Station" in place of an "Active Sensor" designation. COMSAT stated that ". . it would seem that active space-borne Radiolocation devices would require extensive coordination and/or frequency assignment control in order to operate under the same allocation with terrestrial Radiolocation device without causing such interference." At this time, we are opposed to changing the definition. The requirements of this service are satisfied by specific allocations as identified.

172A. The frequency band 17.9–18.7 GHz has been identified for read-out of telemetry from meteorological satellites.

173. The following frequencies have been identified for Earth Exploration Satellite telecommunications links. The 17.9–19.7 GHz band has been identified for the space-to-earth link from a data relay satellite to a central data acquisition earth station. A bandwidth of 1800 MHz is required to accommodate the data transmission requirements of a data relay satellite serving multiple low orbiting earth exploration satellites.

174. The 27.5–30 GHz band has been identified for the earth-to-space link from the central data acquisition earth station to a data relay satellite as well as for the forward link from a data relay satellite to the low orbitting earth exploration satellite.

175. The 25.25–27.5 GHz frequency band is proposed for data from low orbitting earth exploration satellites to a data relay satellite.

176. Signal levels at the Earth resulting from transmissions over all data links would produce power flux density levels within the present power flux density limits.

177. The requirement in the 25.25–27.5 GHz band has been included in the proposed Table of Allocations. A new footnote 411A has been proposed in the Table to satisfy the requirements for space-to-space transmission in the 27.5–30 GHz band.

178. The requirements in the 17.9–19.7 and 27.5–30 GHz bands for radiocommunications between an earth station at a fixed point and a satellite can be satisfied by the existing allocations in Fixed-Satellite Service. For clarification, the Earth Exploration Satellite Service can be added to the other services listed as examples in the Radio Regulation 84 AG.

MOD	Fixed-Satellite Service
84A G Spa2..	A radiocommunication service: Between earth stations at specified fixed points when one or more satellites are used; in some cases this service includes satellite-to-satellite links, which may also be effected in the inter-satellite service; For connection between one or more earth stations at specified fixed points and satellites used for a service other than the fixed-satellite service (for example, the mobile-satellite service, broadcasting-satellite service, earth exploration-satellite service, etc.).

Radio Astronomy

179. The Radio Astronomy Service Working Group (RASWG) and the National Academy of Sciences commented on the Radio Astronomy service allocations. The RASWG requested sharing the band 14.5–15.35 GHz on a primary basis with Space Research. Footnote 408B provides for a secondary allocation to the Space Research service in the space-to-earth direction. Transmission is already planned by the Tracking and Data Relay Satellite in the major portion of this band ruling out any possibility of sharing it with the Radio Astronomy service. We are proposing to add the restriction "except aeronautical mobile" in the frequency bands 22.21–22.5 GHz and 217–230 GHz as requested by the RASWG. We are also proposing to add the footnote 412II in the 48–50 GHz, 95–101 GHz and 142–150 GHz bands as required by RASWG for observation of three carbon monosulfide lines. The footnote 412M is being modified, as requested by RASWG, to include the frequency 140.840 GHz for observation of the formaldehyde line, and we are deleting the footnote MOD 412J from the frequency bands 217–220 GHz and 220–221 GHz as it is inappropriate. The National Academy of Sciences considered the needs of the space research services, noted that "clear" bands allocated for use by passive sensors aid the Radio Astronomy service, and supported the proposals for such bands. Both the RASWG and the National Academy of Sciences noted the potential for problems of interference from adjacent bands and recommended that the harmful interference limits defined in CCIR report 224–3 be taken into account in planning for adjacent band usage.

Fixed/Mobile (including Auxiliary Broadcast)

180. Referring to the frequency band 11.7–12.2 GHz, the Auxiliary Broadcasting Service Working Group (SWG) stated that "There is no need to reduce the Mobile Service to secondary status." The co-equal sharing of the Mobile, and the Broadcasting- and the Fixed-Satellite services in the same service area is practically impossible and we disagree with thesis put forward by the Auxiliary Broadcasting SWG.

181. The Auxiliary Broadcasting SWG stated that "It would be expected that 12.2–12.5 MHz (sic) could be shared on a secondary basis." This is a domestic issue. As we are not proposing deletion of the international allocations, the subject will not be discussed further.

182. The Auxiliary Broadcasting SWG opposed the proposed allocation of the 12.75–13.25 GHz band to the Fixed-Satellite service and stated that "* * * no other services be permitted to share the 12.70–13.25 GHz band with the Television Auxiliary Broadcasting Services". Since this particular band was the only one that appeared to be available to satisfy the Fixed-Satellite uplink requirement, we are unable to comply with this request. However, restrictions on the Fixed-Satellite service, similar to those mentioned in the Fixed-Satellite section for the 10.7–11.7 GHz band, would be considered if so proposed. In the 12.75–13.25 GHz band, it is not certain if the electronic news gathering transmissions would interfere with the space station receiver or not. The typical ranges of parameters of the mobile electronic news gathering system are as follows:

Maximum transmitter power, dBW, −20 to 0
Antenna diameters, 3" to 2'
Antenna gain, dBi, 20 to 35.5
Modulation, FM
BW, MHz, 25
Link, Length, miles, 0.5 to 5
Receiver Noise Figure, dB, 8
Sound Subcarrier(s), Two

183. Comments are invited on the sharing criteria between the electronic news gathering systems and the space stations, and on the level of the interference, if any, that would be introduced to the space stations by the current parameters of the electronic news gathering systems. Considering the answers to the above questions, along with any other pertinent information before us, we will carefully review the situation during domestic Rulemaking proceedings.

184. Referring to the frequency bands 17.7–19.7 GHz, 21.2–22, 22.4–23 GHz and 37–40 GHz, the Auxiliary Broadcasting SWG urged "* * * the Commission to permit no footnote to be associated with these bands which would preclude their use for Television Auxiliary Stations". If this SWG submits any analysis showing a particular footnote to be detrimental to the Television Auxiliary Stations, then we will consider those comments.

Radionavigation/Radiolocation

185. These services in the bands above 10.7 GHz were only nominally addressed in the comments and reply comments to the Third Notice of Inquiry. Specific comments included the deletion of footnote 407A from the 13.25–13.4 GHz band, deletion of footnote 408A from the 14–14.3 GHz band, and support for addition of a new footnote 409CA in the band 15.7–16.6 GHz. In addition, the RTCA and ARINC supported the retention of the Radionavigation allocations at 31.8–32.3 GHz and 33–33.4 GHz.

186. The ARINC and RTCA request for suppression of of footnote 408A in the band 14–14.3 GHz has been opposed by COMSAT in its reply comments, "unless CCIR Recommendation 496 (concerning frequency sharing criteria) is incorporated in the International Radio Regulations". This band will be used by the INTELSAT system and by the SBS system for the uplink to their satellites. Such systems require huge investments and must be protected. We, therefore, cannot accept the deletion of footnote 408A at this time. We do, however, invite comment on the sharing criteria which could be adopted in lieu of footnote 408A, if such criteria are deemed perferable to footnote 408A.

187. ARINC proposed the deletion of the footnote 407A from 13.4–14.0 GHz band without giving any reason. The footnotes 407A and 408B are proposed to be deleted and the secondary Space Research Service is proposed to be allocated in the Table to meet our national requirements. Except for the 14.4–14.5 GHz band, the direction indicators for the Space Research Service, in this region of the spectrum, are deleted. Because of the secondary status of the proposed allocations to the Space Research Service, no interference is expected to be caused by it to the other services.

Above 40 GHz

188. COMSAT commented that we may desire to leave a large portion of the frequency band above 40 GHz unallomade at this time * * *." The private cated but request a conference in the late 1980s to make specific allocations. COMSAT General had previously recommended certain frequency bands above 40 GHz for the fixed-satellite service. COMSAT General proposed that "* * * no other allocations above 40 GHz be made at this time * * *" The private microwave advisory committee stated its belief that allocations above 100 GHz should be left "open" to insure future flexibility. AT&T recommended "* * * that the Commission continue to press for international allocations of the spectrum from 40 to 300 GHz to encourage experimentation and innovative development." Several arguments, any of which is persuasive, can be made for proposing specific allocations above 40 GHz. First, a large portion of the spectrum above 40 GHz is currently allocated; other Administrations may be expected to propose allocations for the frequency bands currently unallocated, and the United States should be prepared for that eventuality. Second, many spectral lines have been identified for the Radio Astronomy and Space Research services. Third, developments are currently in progress in several frequency bands above 40 GHz. Fourth, the allocations table helps users to select the appropriate frequency for the development of a specific service, thus preventing waste of funds. Fifth, and perhaps most importantly, orderly spectrum development ensues. The last General World Administrative Radio Conference (GWARC) was held in 1959 and at that time the entire Article 5 was considered. The World Administrative Radio Conferences held between 1959 and the present were "specialized" in nature and devoted to specific services such as Space, Maritime, and Broadcasting-Satellite. We are not certain that another GWARC could be convened in the late 1980s as suggested by COMSAT. Considering all factors, we believe it prudent to prepare a specific Frequency Allocations Table extending uo to 300 GHz.

189. Various lasers systems are currently being developed for radar, and for terrestrial and satellite communications. What, if any, allocations and technical regulation should be proposed for these frequencies?

International Radio Regulations and Appendices

190. Although the published Agenda for the 1979 WARC specifies Articles of the Radio Regulations which are to be considered, we are reviewing all Articles and Appendices in order to determine the appropriate actions to take in their regard. For purposes of discussion, we have divided the Articles and Appendices into those dealing with definition matters, technical matters, and operational matters. Some proposals pertaining to these matters were presented in the previous Notice; additional proposals arising to this time are presented in Appendix 3.

Definition Matters

191. We have identified a requirement for accommodating spaceborne radars such as docking and mapping radars used in space programs. We have considered modifying the definition of the Radiolocation Service to include spaceborne operations, however, at this time we are opposed to this subject and we may propose specific allocations in future to satisfy this requirement.

Technical Matters

192. Spectrum requirements are far beyond the ability of usage concepts to provide. There is simply not enough usable spectrum for exclusivity. To determine which services should be sacrificed at the expense of another, would, in most cases, be a difficult task. Initially at least, it must be assumed that, with few exceptions, all services must be regarded as coequal.

193. We ask all users to recognize the impossibility of obtaining all the spectrum requested and the virtual impossibility of exclusivity with perhaps several exceptions. We must develop conditions for cooperative use which go far beyond the concepts of sharing that presently prevail. Given that a band must be used by more than one justifiable service, our problem is to determine

the specific conditions or criteria, which can be applied to two or more services on mutually cooperative rather than mutually exclusive bases in order to achieve more effective use of the spectrum.

194. The need for cooperative use of the spectrum (as evidenced by the projected demands for existing services and expected growth of new services) is greater than ever envisaged before by more than an order of magnitude.

195. We ask that interested parties address themselves to the conditions under which they can cooperate with other services that must make use of the same portions of the spectrum.

196. A number of problem areas concerning cooperative use have been identified as being of great importance. We solicit comments on these problems (see Problem Areas) and we suggest that the replies take cognizance of the following key issues which underlie the development of increased sharing through "Cooperative and Mutual Usage" criteria:

Key Issues

(1) Is there a case for exclusivity as far as particular bands or frequencies are concerned?

(2) Is the need for the service in a requested band such that increased sharing through cooperative and mutual usage criteria should be developed, or would the service suffer serious harm by virtue of such usage?

(a) Exactly how does the service make us of the band (for which increased sharing through cooperative and mutual usage are to be developed)? The answer should be couched in terms of radiation patterns, size of markets, use as a function of population density, geographical location, time of day, expected physical coverage by radiated signal, frequency sharing, and any other related pertinent factors. In particular, consideration should be given to the probability statistics of use, and tolerable interference, since less than 100% uninterrupted service may be a necessary factor in the increased sharing through cooperative and mutual usage criteria.

(b) Which factors, specifically relevant to the above usage, would have to be addressed in order to develop increased sharing through cooperative and mutual usage criteria?

(3) Do the existing Radio Regulations concerning interference aid or interfere with the determination of increased sharing through cooperative and mutual usage criteria? If so, in what way, and what modifications would be helpful?

(4) Are there preferred technical and operating characteristics of a service, or of services for which it is necessary to develop increased sharing through cooperative and mutual usage criteria? For instance, would specific attention to such factors as antenna characteristics, transmitted power, flux density, type of emission, receiver characteristics, TASI, etc. for a given system, or equipment, not presently specified in detail, permit greater usage of the band by the several necessary services?

(5) Would cooperative use be enhanced by specific rules and regulations which do not presently exist, and what would such rules cover?

(6) In the event that special coordination procedures would be helpful for increased sharing through cooperative and mutual usage, what form would these take? Finally, what would such procedures be able to accomplish that cannot be accomplished under the present operating structure?

(7) Can requests for various segments of the bands be coordinated in some form of priority? For instance, if a service must be expanded, is greater priority to be given to new bands, or expansion of existing bands? If increased sharing through mutual and cooperative usage criteria must be employed, what other services are the most and the least desirable for mutual usage? Is a single wide band used in cooperation with other services, preferable to a number of smaller bands with perhaps less interference potential? Where is it contemplated that such bands should lie? Are other factors pertinent?

(8) In what way do modulation techniques, e.g. digital, FM, spread spectrum, etc., affect the increased sharing through cooperative and mutual usage?

197. We wish to approach this problem with the positive outlook that at least partial solutions are available if only we search diligently enough.

198. With these thoughts in mind, particular problems of band usage are here brought to the specific attention of those users who are involved. These matters are also addressed in the text of this Notice of Inquiry either in terms of service or spectrum bands or both. However, because they pose particularly severe difficulties as far as resolution is concerned, they are presented below. We request that the various users suggest criteria/conditions for increased sharing through cooperative usage, with particular reference to the preceding statements:.

Problem Areas

(1) Usage of the 3.4–6.925 GHz band by the Broadcasting-Satellite Service, Fixed Satellite Service, and mobile users. (See Appendix 5.)

(2) Mutual usage by Mobile and Radiolocation Services in the 896–902, and 941–947 MHz bands. There are also potential problems with troposcatter and broadcasting. (Technical Parameters of Radiolocation Service are listed in the common carrier Land-Mobile Section, page 20.)

(3) Broadcasting and Radiolocation services in the 1615–1800 kHz band require consideration.

(4) Usage of the 4–30 MHz band by HF Broadcasting and Fixed/Mobile services, Maritime Mobile Service sharing with secondary Fixed Service in accordance with the Note described in the HF Fixed section, page 9.

(5) Usage of the 821–825 MHz and 866–870 MHz bands for Mobile Satellites—interference with TV, land mobile and other services requires consideration. (See footnote 329B.)

(6) Usage of 2300–2500 MHz band. Required for Broadcasting-Satellite Service, along with requirements of Aviation and Marine related services.

(7) A 1% bandwidth is requested for radio astronomy research in the 3 GHz region. At present it is not clear where this may be best provided. (See footnote 369A.)

Operational Matters

199. Operational matters are those which are left after the Table of Frequency Allocations, technical matters and notification provisions are excluded. Numerous topics which would fall within the purview of the operations committee which may be established at the 1979 WARC are treated in Appendices 3 and 4 of this document. In many instances where the intent of the proposed MOD or ADD is not self-evident, a tentative reason has been shown.

200. There is not intent to expand the agenda as presently adopted by the Administrative Council. These matters go beyond the scope of the draft agenda for the 1979 WARC already adopted pursuant to the provisions of the Convention. However, that Convention does provide for the amendment of draft agendas already established. Since there will be three meetings of the ITU Administrative Council prior to the Conference, and since the Council may initiate adjustment of, or expansion of, the agenda, we are here endeavoring to prepare should matters not now slated for consideration perhaps suddenly be added to the agenda. Were an expansion effected in, say, June of 1979, the Commission would not then have time, in all probability, to issue a notice of inquiry prior to the convening of the WARC on September 24, 1979.

201. Rather, noting the provisions of the Administrative Procedure Act, we would prefer to invite attention to these matters now while there is some time to benefit from public comment thereupon. It should also be noted that portions of these appendices were produced very late in the preparation of this notice and therefore have not been reviewed in their entirety by all appropriate elements in the preparatory structure. When that total review is effected, some may be altered or removed and others may be added as is true for all matters advanced herein. With this in mind, cogent comment upon the proposals advanced is requested with the hope that commenters will bear in mind that this is not a domestic proceeding, and that the scope of the proceeding extends well beyond 1977.

Resolutions and Recommendations

202. We are reviewing all Resolutions and Recommendations in order to determine the appropriate actions to take in their regard. The proposals arising to this time are presented in Appendix 4; additional proposals will be presented in future Notices. In some cases we are proposing no action. In other cases, the proposals will depend on the outcome of events at the 1979 WARC or in the period between today and the time of

the 1979 WARC; these cases are discussed below.

203. The principles mentioned in Resolution 3 and Recommendation 37 are still valid; it may be appropriate for a new Resolution setting forth present and future techniques and calling upon administrations to utilize those techniques to reduce congestion in the band 4 MHz–27.5 MHz.

204. Resolution 10 needs to be modified if the bands 7000–7100 kHz and 7100–7300 kHz are revised; in any event, the concept of sharing HF bands by certain services, e.g., Fixed and Broadcasting, may dictate modifications if sharing is decided to be a feasible concept.

205. Resolutions Mar 5 and Mar 2–20 are related and will need to be updated by the 1979 WARC; the modifications will be further dependent upon proposals considered by the 1979 WARC.

206. Resolution Mar 2–5 can be suppressed provided that the ITU Secretary General has published in the List of Coast Stations the Distribution Plan for Group Channels—HF Al Morse.

207. Recommendation 31 relates to the protection of standard frequency guard bands for use by radio astronomy; if incorporated into a footnote in the Radio Regulation, then the Recommendation could be suppressed.

208. Recommendation Mar 2–1 can be suppressed if the WARC provides allocations for low power radiolocation.

209. The actions required on Recommendations Mar 2–8 and 2–9 depend upon the actions of the WARC with regard to allocations proposals for the Maritime Mobile service and further with regard to how that spectrum is divided among the various maritime users.

210. Recommendation Mar 2–11 can be suppressed if the WARC makes available additional UHF frequencies for onboard ship communications. There is a relevant CCIR Draft Report (No. 587, Rev 76) dealing with question 18–118.

211. Recommendation Spa 2–1 is likely to be suppressed by the 1979 WARC.

212. The actions on Recommendations Spa 2–3, Spa 2–4, Spa 2–5 are dependent upon the actions of the WARC with regard to appropriate allocations. It is likely that these Recommendations will be suppressed.

213. The action on Recommendation Spa 2–7 is dependent upon the actions of the WARC with regard to allocation proposals for the Radio Astronomy service.

Conclusion

214. As we have previously indicated in this proceeding, all participants should keep in mind the importance of the 1979 WARC results. Based upon past experience, decisions reached at this conference can be expected to provide the basis for international radio regulation policy for most of the remainder of this century. It is of the utmost importance to develop U.S. proposals which effectively promote that combination of telecommunication uses which offers the maximum social and economic contribution to the national welfare and which also contain the flexibility necessary to accommodate important new applications of this dynamic technology as well as the unique requirements of our international partners in the ITU. It must be recognized that the proposals presented herein pertain to the international Radio Regulations and that the domestic implementation of such proposals will require extensive U.S. national consideration.

215. Comments bearing on the proposed revisions to the international Radio Regulations, Appendices, Resolutions, and Recommendations, and any other matters relevant to preparation for the 1979 WARC are hereby sought from all interested United States individuals, parties, or groups of parties which may exist. In order to facilitate our analysis of the comments, we are asking that they be organized according to the topics presented in this Notice.

216. Pursuant to applicable procedures set forth in Section 1.415 of the Commission's Rules, interested persons may file comments on or before August 1, 1977, and reply comments on or before August 22, 1977. All relevant and timely comments and reply comments, along with any pertinent information which we may have available, will be considered. When commenting, it should be borne in mind that this effort is directed toward international allocations and not domestic issues. The U.S. wants to achieve maximum flexibility in international allocations proposals.

217. Although § 1.419 of the Commission's rules required that an original and five copies of all statements, briefs, or comments be filed in response to a Notice, our conference preparatory organization necessitates the filing of an orignal and nineteen copies. All responses received will be available for public inspection during regular business hours in the Commission's Public Reference Room at its Headquarters in Washington, D.C.

218. This Notice is issued pursuant to the authority set forth in section 4 (i) of the Communications Act of 1934, as amended 47 U.S.C. 154(i).

FEDERAL COMMUNICATIONS COMMISSION,
VINCENT J. MULLINS,
Secretary.

APPENDIX 1.—RESPONDENTS TO THIRD NOTICE OF INQUIRY

COMMENTS RECEIVED IN RESPONSE TO THIRD NOTICE OF INQUIRY—DOCKET 20271

Aeronautical Radio, Inc. and the Air Transport Assoc. of America
Aerospace & Flight Test Radio Coordinating Council
Aircraft Owners & Pilots Association
AM Broadcasting Service Working Group
American Broadcasting Companies, Inc.
American Telephone & Telegraph Co.
American Waterways Operators, Inc.
Association of American Railroads
Association for Broadcast Engineering Standards
Association of Independent Television Station, Inc.
Association of Maximum Service Telecasters, Inc.
Auxiliary Broadcasting Service Working Group
Clear Channel Broadcasting Service
Communicasting Assoc. of America, Inc.
Communications Satellite Corporation
COMSAT General Corp.
Corporation for Public Broadcasting
Council for UHF Broadcasting
Decca Survey Systems, Inc.
Domestic Land Mobile Advisory Committee
E. I. Du Pont de Nemours & Co.
Electronic Industries Assn. (Consumer Electronics Group)
Family Stations, Inc.
Far East Broadcasting Company, Inc.
Farinon Electric
Fisher's Blend Station, Inc.
General Electric Company (Communications Systems Div.)
General Electric Company (Major Appliance Business Group)
Gilmore Broadcasting Company
GTE Service Corp.
Guy, Arthur W.
Haddock, Hoyt S.
Hazeltine Corporation
Health, Education & Welfare Dept.
Joint Council on Educational Telecommunications
Krebs, William N.
Land Mobile Communications Council
Litton Microwave Cooking Products, Inc.
Marsten, Richard B.
Medallion Broadcasters, Inc.
Metromedia, Inc.
Mobile Marine Radio, Inc.
Motorola, Inc.
National Academy of Sciences
National Association of Broadcasters
National Astronomy and Ionosphere Center
National Broadcasting Company, Inc.
National Radio Broadcasters Association
Odom Offshore Surveys, Inc.
Offshore Navigation, Inc.
Private Land Mobile Service Working Group
Private Microwave Advisory Committee
Public Broadcasting Service
Public Service Satellite Consortium
Radio Astronomy Service Working Group
Radio Technical Commission for Aeronautics
Radio Technical Commission for Marine Services
Raytheon
RCA American Communications, Inc.
RCA Global Communications, Inc.
Satellite Business Systems
Television Broadcasting Service Working Group
Thompson, Arthur
Trans World Radio and Trans World Radio Pacific
Utilities Telecommunications Council
WGN Continental Broadcasting Company
International CB Radio Operators Association
E. P. Johnson Company

COMMENTS TO THIRD NOTICE OF INQUIRY—DOCKET 20271 (AMATEUR)

Amateur Radio Advisory Committee
American Radio Relay League
Arbogast, Burl T.
Argonne Amateur Radio Club
Bayalis, John
Beacon Radio Amateurs
Berberich, Frank
Bidstrup, Scott C.
Big Island Amateur Radio Club
Bowen, Chuck
Bowles, William G., Jr.
Cambridge, Ohio Amateur Radio Club
Carlen, Ed
Carlson, C. R.
Choisser, Bill and Kenney, Lawrence
Citrus Center Amateur Radio Club
Clark, Rev. Benjamin
Cooke, Willis R.
Davis, Marshall B.
Duck, Edward E.
East Bay Radio Club
Edgewood Amateur Radio Society, Inc.

Electronic Industries Association (Communications Division)
Emergency Amateur Radio Club
Enid Amateur Radio Club, Inc.
Erk, Peter
Evans, James J.
Eye, Louis D., II
Fisher, James W.
Fisher, Walter
Fountain City Amateur Radio Club
Fulton County Amateur Radio Club
Fort Belvoir Amateur Radio Club
Fulcher, William, N.
Gainesville Amateur Radio Society
Great Smoky Mountain Chapter of 10–X
Greater Fairfield Amateur Radio Association
Grew, William
Guenther, John
Groenhof, Henry
Gulino, Chick
Gundry, James A.
Heimberger, Raymond E.
Henselman, Ronald
Hodges, Louis A.
Hauck, Ray N.
Houston, Al
Knirko, Lee
Larkin, Clarence J., Jr.
Leopold, Hank
Letovrneau, Wayne
Livesay, Claude, Jr.
Long Island Mobile Radio Club
Magro, Daniel, Jr.
May, Robert M. II
Mitchell, W. M.
Moss, James
National Capitol DK Association
Pagliarini, John A., Jr.
Paruolo, Emil
Pentagon Amateur Radio Club
Praig, G. Franklin
Preston, James C.
Quarter Century Wireless Association Inc. (Long Island Chapter)
Radio Amateur Club of Knoxville
Radio Amateur Megacycle Society
Radio Amateur Satellite Corporation
Reiter, Verlin E.
Reynolds, Howard W.
Rock Creek Amateur Radio Association
Rudd, F. A.
Ruh, Henry B.
Scheurer, J. R.
Scholtz, William
Shreve, R. B.; Mclaren, Donald; Hinds, George; Carson, Willard; Hollis, Dave
Spearman, Frank
Springer, Alfred E.
Stitzer, Steven N.
Texas VHF-FM Society Inc.
Thompson, Andrew F.
Thornton, Douglas
Tiffany, W. D.
Troster, John G.
Southern California Repeater & Remote Base Association
Tucson Repeater Association
West, Bryan F.
Winona Amateur Radio Club
Wolf, John

APPENDIX 2.—PROPOSAL FOR INTERNATIONAL TABLE OF FREQUENCY ALLOCATIONS (ARTICLE 5)

METHOD OF PRESENTATION

1. Numbers shown are the international Radio Regulation numbers;
2. Underlining indicates new text;
3. If a service is in all Capitals, it is a primary service (e.g. MOBILE);
4. If a service has a Capital as the first letter, and the remainder in lower case, it is a secondary service (e.g. Mobile);
5. Slant bars before and after service indicate a permitted service (e.g. /Mobile/);
6. ADD means an addition to the current provisions;
7. Brackets through the text (e.g., [ ]) indicate existing text which is being deleted;
8. MOD means a modification of the current provisions;
9. SUP means to suppress the current provisions;
10. NOC means we are proposing that the current provisions not be changed;
11. In view of the action taken by the Final Acts of the 1971 Space Conference all frequencies should be expressed in hertz instead of cycles per second;
12. The absence of MOD, SUP OR NOC against a given Radio Regulation means that no proposal is being made in respect to that provision.

kHz

Region 1	* *	Region 2	* *	Region 3
Below 10		(Not allocated) 157		
REASON: No allocations to services proposed. NOC 157 REASON: There is a continuing need for this condition in the event that frequencies below 10 kHz are used for special national purposes.				
10-14		RADIONAVIGATION ~~Radiolocation~~		
Reason: There is continuing and expanded use of this frequency band for worldwide radio navigational systems (Omega) for maritime and aeronautical aids. Radiolocation is being deleted to protect radionavigation systems, and to preclude the entry of incompatible systems in the future.				
14-19.95		FIXED MARITIME MOBILE 158 159		
19.95-20.05		STANDARD FREQUENCY 160 159		
20.05-70		FIXED MARITIME MOBILE 158 159 161		

kHz

Region 1	* *	Region 2	* *	Region 3
70-72 RADIONAVIGATION 162 161		70-90 FIXED MARITIME MOBILE 158 MARITIME RADIONAVIGATION 162 Radiolocation		70-90 FIXED MARITIME MOBILE 158 RADIONAVIGATION 162
72-84 FIXED MARITIME MOBILE 158 RADIONAVIGATION 162 161 163				
84-86 RADIONAVIGATION 162 163				
86-90 FIXED RADIONAVIGATION 162 MARITIME MOBILE 158 163		164		165

Reason: Operational requirements remain constant.

kHz

Region 1	Region 2	Region 3
90-110	90-110	90-110
Fixed		
~~FIXED~~	RADIONAVIGATION	~~FIXED~~
~~MARITIME MOBILE 158~~	Fixed	~~MARITIME MOBILE 158~~
RADIONAVIGATION	Maritime Mobile 158	RADIONAVIGATION
Maritime Mobile 158		Fixed
		Maritime Mobile 158
163 166 167	166 167	166 167

REASON: To provide primary allocation for the radionavigation service worldwide.

NOC 166

REASON: Applicable to the contemplated use of this band for worldwide radionavigation systems. Affords additional protection.

kHz

Region 1	Region 2	Region 3
110-112	110-~~130~~ 115	110-130
FIXED	FIXED	FIXED
MARITIME MOBILE	MARITIME MOBILE	MARITIME MOBILE
RADIONAVIGATION 162	MARITIME	RADIONAVIGATION 162
	RADIONAVIGATION 162	
	Radiolocation	
163 167 ~~168~~	~~164~~ 167 ~~168~~	
112-115	115-130	
RADIONAVIGATION 162	FIXED	
	MARITIME MOBILE	
163	MARITIME	
	RADIONAVIGATION 162	
	BROADCASTING	
	Radiolocation	
115-126		
FIXED		
MARITIME MOBILE		
RADIONAVIGATION 162		
163 167 ~~168~~ 169		
126-129		
RADIONAVIGATION 162		
163		
129-130		
FIXED		
MARITIME MOBILE		
RADIONAVIGATION 162		
163 167 ~~168~~	164 167 ~~168~~	167 ~~168~~ 170

REASON: To provide for low frequency broadcasting.

SUP 168

REASON: No longer required.

5.

kHz

Region 1	Region 2	Region 3
130-150	130-150	130-150
MARITIME MOBILE 172 Fixed	FIXED MARITIME MOBILE BROADCASTING	FIXED MARITIME MOBILE
163 167 173	167	167
150-160	150-160	150-160
MARITIME MOBILE 167 174 BROADCASTING	FIXED MARITIME MOBILE BROADCASTING	FIXED MARITIME MOBILE
175	167	167
160-255	160-200 190	160-200
~~BROADCASTING~~	~~FIXED~~ 179	FIXED Aeronautical radionavigation
176	BROADCASTING ~~179~~	
	190-200 ~~FIXED~~ AERONAUTICAL RADIONAVIGATION ~~179~~	
	200-285 275 AERONAUTICAL RADIONAVIGATION Aeronautical mobile	
255-~~285~~ 275 MARITIME MOBILE 174 BROADCASTING AERONAUTICAL RADIONAVIGATION 176 177 178		

REASONS: Broadcasting added 130-190 kHz to provide for low frequency broadcasting. Aeronautical radionavigation added 190-200 kHz band to accommodate the growing needs of this service.

6.

kHz

Region 1	Region 2	Region 3
275-285 MARITIME MOBILE 174 BROADCASTING AERONAUTICAL RADIONAVIGATION Maritime radionavigation (radiobeacons) 176 177 178	275-285 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)	

Reason: To support requirements for maritime radiobeacons.

kHz

Region 1	Region 2	Region 3
285-315	MARITIME RADIONAVIGATION (radiobeacons) Aeronautical radionavigation	

REASON: There is a continuing need to utilize this band for radionavigation (radiobeacons).

315-325 AERONAUTICAL RADIONAVIGATION 180	315-325 MARITIME RADIONAVIGATION (radiobeacons) Aeronautical radionavigation	

Reason: There is a continuing need to utilize this band for radionavigation (radiobeacons).

325-405 335	Maritime radionavigation (radiobeacons) AERONAUTICAL RADIONAVIGATION Aeronautical mobile 181	

Reason: There is a continuing need to utilize this band for aeronautical radionavigation and aeronautical mobile, and to support requirements for maritime radionavigation beacons.

335-405	AERONAUTICAL RADIONAVIGATION Aeronautical mobile 181	

Reason: There is a continuing need to utilize this band for aeronautical radionavigation and aeronautical mobile services.

kHz

Region 1	Region 2	Region 3
405-415 MOBILE except aeronautical mobile AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radio direction-finding) 182 183 184	405-415 MARITIME RADIONAVIGATION (radio direction finding) /Aeronautical radionavigation/ Aeronautical mobile 182	405-415 RADIONAVIGATION Aeronautical mobile 182

REASON: There is a continuing need for the services specified above in this band.

NOC 182

REASON: There is a continuing need to provide the maritime radionavigation (radio direction-finding) service with protection from interference from other services utilizing this band.

kHz

Region 1	* *	Region 2	* *	Region 3
415-490				
MARITIME MOBILE				
185 186				

REASON: There is a continuing need by the maritime mobile service to utilize this band for telegraph communications over short and medium distances.

490-510				
MOBILE (distress and calling)				
187				

REASON: There is a continuing need to maintain this band for international distress traffic and calling purposes.

NOC 187

REASON: Same as indicated above.

kHz

Region 1	* *	Region 2	* *	Region 3
510-525	*	510-525	*	510-525
MARITIME MOBILE 186 188A Aeronautical radionavigation 188	*	~~MOBILE~~ /Aeronautical radionavigation/ 188 MARITIME MOBILE 186 188A	*	MARITIME MOBILE 188A Aeronautical mobile Land mobile
185	*		*	189

REASON: Mobile allocation deleted and maritime mobile allocation (and appropriate footnote) inserted to conform to actual usage of band.

NOC 188

REASON: To retain priority for the maritime mobile service in this band on a worldwide basis.

ADD 188A The frequency 512 kHz is used as prescribed by Nos. 1123 and 1125 through 1129.

Reason: To indicate 512 kHz is used in accordance with provisions of Article 32.

kHz

Region 1	Region 2	Region 3
525-535	525-535	525-535
BROADCASTING	MOBILE ~~Broadcasting-191~~ ~~Aeronautical Radionavigation~~ 188 BROADCASTING	MOBILE ~~Broadcasting~~ BROADCASTING
190		

REASON: Population growth, shifts in population, new communities and other factors are sufficient to warrant some expansion of the medium frequency broadcasting band to meet future requirements.

SUP 191

REASON: No longer required.

535-1605

BROADCASTING

REASON: There is a continuing need to provide existing and expanded broadcasting services to the general public.

kHz

Region 1	Region 2	Region 3
1605-~~2000~~ 1800	1605-~~1800~~ 1615	1605-1800
FIXED MOBILE except aeronautical mobile	~~FIXED~~ MOBILE ~~AERONAUTICAL RADIONAVIGATION~~ ~~Radiolocation~~ BROADCASTING	FIXED MOBILE
192 193 194 ~~197~~ 195A		197
	1615-1800	
	FIXED MOBILE ~~AERONAUTICAL RADIONAVIGATION~~ ~~Radiolocation~~ BROADCASTING RADIOLOCATION	
195B	195C	195B

ADD 195B The bands 1615-1800 kHz and 3230-3400 kHz are also allocated to the radiolocation service.

REASON: To accommodate radiolocation services for geophysical maritime and surveying functions.

REASON: Broadcasting added to provide expansion of medium frequency band to meet future requirements. Radiolocation modified to primary co-equal ~~shared~~ to satisfy requirements such as geophysical, maritime, and surveying functions.

ADD 195C Special agreements between administrations concerned shall determine the conditions for implementations of broadcasting in the proximity of international boundaries to preclude harmful interference being caused to the radio location service.

REASON: To ensure some measure of protection for Radiolocation systems.

kHz

Region 1	Region 2	Region 3
1800-1900 ~~FIXED~~ ~~MOBILE except aeronautical mobile~~ AMATEUR 192 193 194 ~~195~~ 195A	1800-~~2000~~ 1900 AMATEUR ~~FIXED~~ ~~MOBILE except aeronautical mobile~~ ~~RADIONAVIGATION~~ MOD 198	
1900-2000 FIXED MOBILE except aeronautical mobile Radiolocation 192 193 194 195 195A	1900-2000 AMATEUR FIXED MOBILE except aeronautical mobile RADIONAVIGATION Radiolocation MOD 198 ADD 198A	

REASON: 1800-1900: Short to medium range communications can be accomplished by the amateur service in this band, and particularly to provide an exclusive allocation worldwide.

1900-2000: To provide for geophysical, maritime, and surveying radiolocation functions, all of which are expanding and are expected to do so.

NOC 195

REASON: Requirement remains valid.

ADD 198A In Region 2 the Loran system has priority until such time as that system is discontinued by agreement between administrations. Other services to which the band is allocated may use any frequency in this band provided that they do not cause harmful interference to the Loran system until such time as that system is discontinued.

MOD 198 ~~In Region 2 the Loran system has priority. Other services to which the band is allocated may use any frequency in this band provided that they do not cause harmful interference to the Loran system.~~

In Region 3 the Loran system in any particular area operates either on 1850 or 1950 kHz, the bands occupied being 1825-1875 kHz and 1925-1975 kHz respectively. Other services to which the band 1800-2000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran system operating on 1850 or 1950 kHz.

REASON: Long range planning indicates that Loran systems will be removed from the band 1900-2000 kHz.

kHz

2000-2045 FIXED MOBILE except aeronautical mobile 193 195A	2000-2065 FIXED MOBILE
2045-2065 METEOROLICAL AIDS FIXED MOBILE except aeronautical mobile 193 195A	

REASON: Retention of this band as presently allocated is for the purpose of retaining flexibility in future sharing arrangements with fixed and mobile services.

2065-2170 FIXED MOBILE except aeronautical mobile (R) 193 195A	2065-2107 MARITIME MOBILE 200 2107-2170 FIXED MOBILE

REASON: 2065-2107: Allocation retained to accommodate continuing need to provide services in this band in the maritime mobile service, and to meet future requirements.

2107-2170: **This band is presently used for a variety of fixed and mobile services.**

Retention of this band as presently allocated internationally is for the purpose of retaining flexibility in future sharing arrangements between fixed and mobile services.

NOC 200

REASON: There is a continuing need for this footnote.

kHz

Region 1	Region 2	Region 3
2170-2194		
	MOBILE (distress and calling) 201 201A	

REASON: There is a continuing need to maintain this band for international distress traffic and calling purposes.

NOC 201 & 201A

REASON: **There is a continuing need to maintain these footnotes to provide for international distress purposes.**

2194-2300	2194-2300	
FIXED MOBILE except aeronautical mobile (R)	FIXED MOBILE	
193 195A		

REASON: **This band is presently used for a variety of fixed and mobile services. Retention of this band as presently allocated is for the purpose of retaining flexibility in future sharing arrangements between fixed and mobile services.**

kHz

Region 1	Region 2	Region 3
2300-2498	2300-2495	
FIXED MOBILE except aeronautical mobile (R) BROADCASTING 202	FIXED MOBILE BROADCASTING 202	
193 195A	2495-2505	
2498-2502		
STANDARD FREQUENCY	STANDARD FREQUENCY	
203 203A		
2502-2625		
FIXED MOBILE except aeronautical mobile (R)	203 203A 2505-2625	
	FIXED MOBILE	
193 195A		

REASON: 2300-2495: Same as reason stated for the band 2194-2300 kHz above. The allocation for broadcasting is being retained because of its use in tropical zones in other countries within Region 2.

2505-2625: Same as reason stated for the bands 2194-2495 kHz.

17.

kHz

Region 1	Region 2	Region 3
2625-2650	2625-2850	
MARITIME MOBILE MARITIME RADIONAVIGATION		
175 195A	FIXED MOBILE	
2650-2850		
FIXED MOBILE except aeronautical mobile (R)		
205 195A		

REASON: Same as stated for the bands 2194-2495 and 2505-2625 kHz.

2850-3025

AERONAUTICAL MOBILE (R)
201A 205A

REASON: Continued use through, and beyond, the year 2000 by the aeronautical mobile (R) service.

NOC 201A 205A

REASON: Continued need for search and rescue purposes.

18.

kHz

Region 1	Region 2	Region 3

3025-3155

AERONAUTICAL MOBILE (OR)

REASON: Continued use through, and beyond, the year 2000 by the aeronautical mobile (OR) service.

3155-3200

FIXED
MOBILE except aeronautical mobile (R)

REASON: This band is presently used for a variety of fixed and mobile services. Retention of this band as presently allocated is for the purpose of retaining flexibility in future sharing arrangements between fixed and mobile services.

3200-3230

FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 202

REASON: This band is presently used for a variety of fixed and mobile services; its retention is required. The allocation for the broadcasting service is being retained because of its use in the tropical zones in other countries within Region 2.

kHz

Region 1	Region 2	Region 3
3230-3400		
	FIXED MOBILE except aeronautical mobile BROADCASTING 202 ~~195~~ 195B	

REASON: Same as stated for the band 3200-3230 kHz above.

3400-3500		
	AERONAUTICAL MOBILE (R)	

REASON: Continued use through, and beyond, the year 2000 by the aeronautical mobile (R) service.

3500-3800 AMATEUR ~~FIXED~~ ~~MOBILE except aeronautical mobile~~	3500-~~4000~~ 3900 AMATEUR ~~FIXED~~ ~~MOBILE except aeronautical mobile (R)~~	3500-3900 AMATEUR ~~FIXED~~ ~~MOBILE~~
3800-3900 ~~FIXED~~ ~~AERONAUTICAL MOBILE (OR)~~ ~~LAND MOBILE~~		206 207

kHz

Region 1	Region 2	Region 3
3900-3950 AERONAUTICAL MOBILE (OR)	3900-4000 AMATEUR FIXED MOBILE except aeronautical mobile (R)	3900-3950 AERONAUTICAL MOBILE BROADCASTING
3950-4000 FIXED BROADCASTING		3950-4000 FIXED BROADCASTING

REASON: To provide exclusive Region 2 amateur allocation in the band 3500-3900 kHz.

kHz

Region 1	Region 2	Region 3
4000-4063	FIXED Mobile except aeronautical mobile (R)	
~~4063-4438~~ 4123	~~MARITIME MOBILE 208 209 209A~~ BROADCASTING FIXED	
4123-4438	MARITIME MOBILE 208 MOD 209A MOD 209	
~~4438-4650~~ 4560	~~FIXED~~ ~~MOBILE except aeronautical mobile (R)~~ MARITIME MOBILE	4438-~~4650~~ 4560 ~~FIXED~~ ~~MOBILE except aeronautical mobile~~ MARITIME MOBILE
4560-4650	FIXED MOBILE except aeronautical mobile (R)	4560-4650 FIXED MOBILE except aeronautical mobile

REASON: Band reduced to expand spectrum available to the maritime mobile service in the adjacent lower band, additionally the band 4063-4123 is required by high frequency broadcasting.

4650-4700	AERONAUTICAL MOBILE (R)
4700-4750	AERONAUTICAL MOBILE (OR)

4750-4850 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 202	4750-4850 FIXED BROADCASTING 202 MOBILE except aeronautical mobile (R)

MOD 209A For the use of carrier frequency ~~4436.3 kHz (as from 1 January 1978 to be replaced by carrier frequency~~ 4125 kHz~~)~~ in the zone of Regions 1 and 2 south of latitude 15°N, including Mexico, and in the zone of Region 3 south of latitude 25°N, see no. 1351E.

Reason: To delete an obsolete date.

MOD 209 On condition that harmful interference is not caused to the maritime mobile service, the frequencies between ~~4063~~ 4123 and 4438 kHz may be used exceptionally by fixed stations communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 watts; however, in Regions 2 and 3, between 4238 and 4368 kHz, a mean power not exceeding 500 watts may be used by such fixed stations.

REASON: Consequential to allocation change.

kHz

Region 1	Region 2	Region 3
4850-4995	FIXED LAND MOBILE BROADCASTING 202	
Reason: Continuing need for existing allocations.		
4995-5005	STANDARD FREQUENCY 203A 210	
5005-5060	FIXED BROADCASTING ~~202~~	
5060-~~5250~~ 5200	MOBILE except aeronautical mobile (R) FIXED	
Reason: Band reduced to expand spectrum available to the maritime mobile service in the adjacent upper band.		
5200-5250	~~FIXED~~ MARITIME MOBILE	
Reason: To provide additional spectrum for use by the maritime mobile service.		
Reason: Mobile except aeronautical mobile (R) added to specific bands to accommodate national requirements.		
Reason: 202 deleted from 5005-5060 to accommodate expansion of international broadcasting.		

kHz

Region 1	Region 2	Region 3
5250-~~5450~~ 5300 ~~FIXED~~ ~~LAND MOBILE~~ MARITIME MOBILE	5250-~~5450~~ 5300 ~~FIXED~~ ~~LAND MOBILE~~ MARITIME MOBILE	5250-~~5430~~ 5300 ~~FIXED~~ ~~LAND MOBILE~~ MARITIME MOBILE
REASON: To provide additional spectrum for use by the maritime mobile service.		
5300-5430 FIXED LAND MOBILE	5300-5450 FIXED LAND MOBILE	5300-5430 FIXED LAND MOBILE
REASON: Band reduced to expand spectrum available to the maritime mobile service in the adjacent lower band.		
5430-5480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	5450-5480 AERONAUTICAL MOBILE (R)	5430-5480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE

kHz

Region 1	Region 2	Region 3
5480-5680	AERONAUTICAL MOBILE (R) 201A 205A	
5680-5730	AERONAUTICAL MOBILE (OR) 201A 205A	
5730- 5950	MOBILE except aeronautical mobile (R) FIXED	
5950-6200	BROADCASTING	
6200-6525	MARITIME MOBILE 211 MOD 211A	
6525-6685	AERONAUTICAL MOBILE (R)	
6685-6765	AERONAUTICAL MOBILE (OR)	

MOC 201A MOC 205A

REASON: Requirement is still valid.

MOD 211A For the use of carrier frequency ~~6204~~ kHz ~~(as from 1 January 1978 to be replaced by carrier frequency~~ 6215.5 kHz~~)~~ in the zone of Region 3 south of latitude 25°N, see no. 1351F.

REASON: To delete an obsolete date.

kHz

Region 1	Region 2	Region 3
6755-~~7000~~ 6950	FIXED MOBILE except aeronautical mobile (R)	

Reason: The service mobile except aeronautical mobile (R) is being added to provide for national requirements.

6950-7000	~~FIXED~~ AMATEUR AMATEUR-SATELLITE	
7000-7100	AMATEUR AMATEUR-SATELLITE	
~~7100-7300~~ 7250 ~~BROADCASTING~~ AMATEUR ~~212~~	7100-~~7300~~ 7250 AMATEUR	7100-~~7300~~ 7250 ~~BROADCASTING~~ AMATEUR
7250-7300 BROADCASTING ~~212~~	7250-7300 ~~AMATEUR~~ BROADCASTING	7250-7300 BROADCASTING

SUP 212

REASON: Consequential to allocation change.

kHz

Region 1	Region 2	Region 3
7300-~~8195~~ 7500		
	FIXED	
	BROADCASTING	
7500-7900		
	FIXED	
7900-8000		
	FIXED MOBILE except aeronautical mobile (R)	
8000-8195		
	~~FIXED~~ MARITIME MOBILE	
8195-8815		
	MARITIME MOBILE	
	201A 213	

REASON: To eliminate difficult sharing problem between broadcasting and amateur services foregoing exclusive bands are proposed.

8815-8965	AERONAUTICAL MOBILE (R)
8965-9040	AERONAUTICAL MOBILE (OR)

kHz

Region 1	Region 2	Region 3
9040-9500	MOBILE except aeronautical mobile (R) FIXED	
9500-9775	BROADCASTING	
9775-9995	FIXED	
9995-10005	STANDARD FREQUENCY 201A 203A 214	
10005-10100	AERONAUTICAL MOBILE (R) 201A	
10100-10700	FIXED	
10700-11175	FIXED MOBILE except aeronautical mobile (R)	
11175-11275	AERONAUTICAL MOBILE (OR)	
11275-11400	AERONAUTICAL MOBILE (R)	
11400-~~11700~~ 11600	FIXED 216	

Reason: Mobile except aeronautical mobile (R) added to specific bands to accommodate national requirements.

11600-11700		
	FIXED BROADCASTING ~~216~~	

kHz

Region 1	Region 2	Region 3
11700-11975	BROADCASTING	
11975-~~12330~~ 12130	MOBILE except aeronautical mobile (R) FIXED	

Reason: Band reduced to expand spectrum available to the maritime mobile service.

12130-12330	~~FIXED~~ MARITIME MOBILE	

Reason: To provide additonal spectrum for use by the maritime mobile service.

12330-13200	MARITIME MOBILE 213	
13200-13260	AERONAUTICAL MOBILE (OR)	
13260-13360	AERONAUTICAL MOBILE (R)	

kHz

Region 1	Region 2	Region 3
13360-~~14000~~ 13410	~~FIXED~~ RADIO ASTRONOMY ~~217~~	

Reason: To meet the needs of Radio Astronomy by providing 50 KHz for use in the 10-13 MHz band.

13410-13700	MOBILE except aeronautical mobile (R) FIXED 217	

Reason: Band reduced to provide spectrum for use by Radio Astronomy in the adjacent lower band.

13700-13800	~~FIXED~~ BROADCASTING	
13800-13950	FIXED	
13950-14000	~~FIXED~~ AMATEUR ~~217~~	

Reason: To provide additional spectrum for use by the amateur and broadcasting services.

14000-14250	AMATEUR AMATEUR-SATELLITE	
14250-14350	AMATEUR 218	
14350-~~14990~~ 14400	~~FIXED~~ AMATEUR	

kHz

Region 1	* *	Region 2	* *	Region 3
14400-14600		FIXED		
14600-14990		MOBILE except aeronautical mobile (R) FIXED		

Reason: The service MOBILE except aeronautical mobile (R) in the preceding bands is being added where indicated to provide for national requirements.

NOC 217 Reason: Continuing need for ISM frequency.

kHz

Region 1	* *	Region 2	* *	Region 3
14990-15010		STANDARD FREQUENCY 201A 203A 219		
15010-15100		AERONAUTICAL MOBILE (OR)		
15100-15450		BROADCASTING		
15450-15550		BROADCASTING FIXED		
15550-~~16460~~ 15950		FIXED		

Reason: Band reduced to expand spectrum available to the maritime mobile service. Broadcasting added to provide expansion of service.

15950-16310		FIXED MOBILE except aeronautical mobile (R)		
16310-16460		FIXED MARITIME MOBILE		

Reason: To provide additional spectrum for use by the maritime mobile service.

16460-17360		MARITIME MOBILE 213		
17360-~~17700~~ 17410		FIXED MARITIME MOBILE		
17410-17600		FIXED		

Reason: Band reduced to provide additional spectrum for use by the maritime mobile service in the adjacent lower band.

kHz

Region 1	Region 2	Region 3
~~17500~~-17700	BROADCASTING ~~FIXED~~	
17700-17900	BROADCASTING	
17900-17970	AERONAUTICAL MOBILE (R)	
17970-18030	AERONAUTICAL MOBILE (OR)	
18030-18052	FIXED	
18052-18068	FIXED Space Research	
18068-~~19990~~ 19000	FIXED	
19000-19500	FIXED MOBILE except aeronautical mobile (R)	

kHz

Region 1	Region 2	Region 3
19500-19990	FIXED	
19990-20010	STANDARD FREQUENCY 201A 203A 220	
20010-~~21000~~ 20230	~~FIXED~~ MARITIME MOBILE	
20230-20400	FIXED	
20400-20700	FIXED MOBILE except aeronautical mobile (R)	
20700-20950	FIXED	
20950-21000	~~FIXED~~ AMATEUR AMATEUR-SATELLITE	
21000-21450	AMATEUR AMATEUR-SATELLITE	

REASON: Fixed band reduced to provide additional spectrum for use by the amateur, amateur satellite, and maritime mobile services.

kHz

Region 1	Region 2	Region 3
21450–21750	BROADCASTING	
21750–21850	FIXED MOBILE except aeronautical mobile (R)	
21850–21870	~~RADIO ASTRONOMY~~ AERONAUTICAL MOBILE (R) 221 B	

Reason: Band for radio astronomy moved to higher in the spectrum. (See 25600–25760 kHz).

21870–22000	~~AERONAUTICAL FIXED~~ AERONAUTICAL MOBILE (R)	

Reason: To provide additional spectrum for the aeronautical mobile (R) service.

kHz

Region 1	Region 2	Region 3
22000–22720	MARITIME MOBILE	
22720–~~23000~~ 22855	~~FIXED~~ MARITIME MOBILE	

Reason: To provide additional spectrum for use by the maritime mobile service.

22855–~~23300~~ 23000	FIXED	

Reason: Band reduced to provide additional spectrum for the maritime mobile service in the adjacent lower band.

23000–23200	FIXED MOBILE except aeronautical mobile (R)	
23200–23350	AERONAUTICAL FIXED AERONAUTICAL MOBILE (OR)	
23350–24990	MOBILE except aeronautical mobile (R) FIXED LAND MOBILE 222 222A	
24990–25010	STANDARD FREQUENCY 203A 223	
25010–25070	FIXED MOBILE except aeronautical mobile	
25070–25110	MARITIME MOBILE 224	

37.

kHz

Region 1	* *	Region 2	* *	Region 3
25110-25600		FIXED MOBILE except aeronautical mobile		
25600-~~26100~~ 25760		~~BROADCASTING~~ RADIO ASTRONOMY		
25760-25860		~~BROADCASTING~~ AMATEUR		

REASON: Band reduced to provide spectrum for the radio astronomy service.

38.

kHz

Region 1	Region 2	Region 3
25860-26100	BROADCASTING	
26100-27500	FIXED MOBILE except aeronautical mobile 225 MOD 226	

NOC 225 Reason: Continued need for ISM frequency.

MOD 226 In ~~Region~~ 2, Australia and New Zealand, the amateur service may operate between the frequencies 26960 and 27230 kHz.

39.

MHz

Region 1	* *	Region 2	* *	Region 3
27.5-28 METEOROLOGICAL AIDS MOBILE 227		27.5-28 METEOROLOGICAL AIDS FIXED MOBILE		
28-29.7 AMATEUR AMATEUR-SATELLITE				
29.7-30.005 FIXED 228 229 231 232 MOBILE				
30.005-30.01 SPACE OPERATION (Satellite identification) FIXED 228 229 231 MOBILE SPACE RESEARCH				

Reason: Operational requirements remain constant and the need exists to confine operations to specific services and avoid interference from non-allocated services.

30.01-37.75 FIXED 228 229 230 231 MOBILE Radio Astronomy 233A MOD 233B				

MOD 233B In making assignments to stations of other services to which the bands 37.75 37.5 - 38.25 38.0 MHz, 150.05 - 153 MHz, 406.1 - 410 MHz, 2690 2670 - 2700 MHz and 4700-4950 4990-MHz are allocated, administrations are urged to take all practicable steps to protect radio astronomy observations from harmful interference.

Reason: To make provision for radio astronomy in the band 37.5 - 37.75 MHz, and 2670-2700 MHz bands.

Reason: Mobile added 27.5-28 MHz to provide worldwide allocation for mobile services.

40.

MHz

Region 1	* *	Region 2	* *	Region 3
37.75-38.25 38.00 FIXED 228 229 231 MOBILE Radio Astronomy MOD 233B				
38.00-38.25 FIXED 228 229 231 MOBILE Radio Astronomy RADIO ASTRONOMY 233B				

Reason: To provide for primary allocation to radio astronomy.

38.25-41 FIXED 228 229 230 231 MOBILE 235 236 236A				
41-47 BROADCASTING Fixed 228 237 Mobile 236A 238 239 240 241		41-50 FIXED 228 231 237 MOBILE 233A 236A		41-44 FIXED 228 237 MOBILE 236A 44-50 FIXED 228 231 237 BROADCASTING MOBILE

Reason: Delete 237 in Regions 2 and 3 since not applicable.

NOC 236 Reason: Continuing need for ISM frequency.

41.

MHz

Region 1	Region 2	Region 3
47-68		
	50-54	
		AMATEUR 244 245 246 247
BROADCASTING	54-68	54-68
	FIXED 228 237 MOBILE BROADCASTING	FIXED 228 231 237 MOBILE BROADCASTING
238 239 241 242 243		246

Reason: Operational requirements remain constant.

42.

MHz

Region 1	Region 2	Region 3
~~68-74.8~~ 73.0	68-73	68-70
FIXED MOBILE except aeronautical mobile	FIXED MOBILE BROADCASTING	FIXED MOBILE AERONAUTICAL RADIONAVIGATION 254 255 256
		~~70-74.6~~ 73.0
		FIXED MOBILE 256 257 258
248 249 250 251 252		
73.00-74.60	73-74.6	73.0-74.6
FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY	RADIO ASTRONOMY	FIXED MOBILE RADIO ASTRONOMY
~~248~~ 249 250 251 252	MOD 253A 2538	256 257 258

MOD 253A In region 2, fixed, mobile and broadcasting service operations previously authorized in the band 73-74.6 MHz may continue to operate on a non-interference basis to the radio astronomy service until 12/31/85.

Reason: To make provisions for the use of the band 73.00-74.6 MHz by radio astronomy.

MHz

Region 1	Region 2	Region 3
74.6-74.8	74.6-75.4	
~~FIXED~~ ~~MOBILE except aeronautical mobile~~ AERONAUTICAL RADIONAVIGATION		AERONAUTICAL RADIONAVIGATION
~~248 249 250~~ 251 252		
74.8-75.2		
AERONAUTICAL RADIONAVIGATION MOD 259		
75.2-~~87.5~~ 75.4		
AERONAUTICAL RADIONAVIGATION ~~FIXED~~ ~~MOBILE except aeronautical mobile~~		
~~248 250~~ 252 ~~260 261 262 263~~	MOD 259	

Reason: To align region 1 with regions 2 and 3 in providing common worldwide band for aeronautical marker beacons.

MOD 259 The frequency 75 MHz is assigned to aeronautical marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on to marker beacons.

Reason: To further protect the marker beacon frequency.

MHz

Region 1	Region 2	Region 3
75.4-87.5	75.4-88	75.4-78
FIXED MOBILE except aeronautical mobile	FIXED MOBILE BROADCASTING	FIXED MOBILE
		255 256 257 266
		78-80
		FIXED MOBILE AERONAUTICAL RADIONAVIGATION
		255 256 257 261 266
		80-87
		FIXED MOBILE
248 250 252 260 261 262 263		254 255 256 257 261 266
		87-100
87.5-100		FIXED MOBILE BROADCASTING
BROADCASTING	88-100	
264 265	BROADCASTING	254 267 268

Reason: Requirements remain unchanged.

MHz

Region 1	* *	Region 2	* *	Region 3
100-108		100-108		
MOBILE except aeronautical mobile (R)			BROADCASTING	
269 270 271			255 256 258 267 272	

Reason: Requirement remains same.

108-117.975

AERONAUTICAL RADIONAVIGATION

117.975 - 132

AERONAUTICAL MOBILE (R)
201A 273 MOD 273A 273B

132-136

AERONAUTICAL MOBILE (R)
MOD 273A 273B 274 ~~274A~~ 274B 275

MOD 273A In the band 117.975-132 MHz and in the band 132-136 MHz, where the ~~aeronautical mobile (R) service is authorized, the use and development for this service of~~ space communications techniques may be authorized for the aeronautical mobile (R) service ~~but limited initially to satellite relay stations of the aeronautical mobile (R) service~~. Such use and ~~development~~ shall be subject to coordination between administrations concerned and those having services operating in accordance with the Table, which may be affected.

Reason: To provide for full satellite application in the band 117.975-136 MHz as a logical extension of the existing terrestrial service.

ADD 273B In the band 117.975-136 MHz, the use of airborne electronic aids to air navigation and any directly associated ground based or satellite borne facilities also may be authorized. Such use shall be subject to coordination between administrations concerned and those having services operating in accordance with the Table, which may be affected.

Reason: To provide flexibility required for position determination through the use of satellites.

SUP 274A

Reason: The date of applicability has passed.

MHz

Region 1	Region 2	Region 3
136-137	SPACE RESEARCH (Space-to-Earth) 281A 281AA	
137-138	SPACE OPERATION (Telemetering and tracking) METEOROLOGICAL-SATELLITE SPACE RESEARCH (Space-to-Earth) 275A 279A 281C 281E	
138-143.6	138-143.6	138-143.6
AERONAUTICAL MOBILE (OR)	FIXED MOBILE Radiolocation Space Research (Space-to-Earth)	FIXED MOBILE Space Research (Space-to-Earth)
275 281G 282A 283	283A	276 279A 284

MHz

Region 1	Region 2	Region 3
143.6–143.65	143.6–143.65	143.6–143.65
AERONAUTICAL MOBILE (OR) SPACE RESEARCH (Space-to-earth) 275 283	FIXED MOBILE Radiolocation Space Research (Space-to-Earth) 283A	FIXED Space Research (Space-to-Earth) MOBILE 278 279A 284
143.65–144	143.65–144	143.65–144
AERONAUTICAL MOBILE (OR) 275 283 282A	FIXED MOBILE Radiolocation Space Research (Space-to-Earth)	FIXED MOBILE Space Research (Space-to-Earth) 278 279A 284
144–146	AMATEUR AMATEUR-SATELLITE	
146–149.9	146–148	
FIXED MOBILE except aeronautical mobile (R) 285 285A	AMATEUR 289	
	148–149.9	
	FIXED MOBILE 285A 290	

MHz

Region 1	Region 2	Region 3
149.9–150.05	RADIONAVIGATION-SATELLITE 285B 285C	
150.05–151	150.05–174	150.05–170
FIXED MOBILE except aeronautical mobile (R) RADIO ASTRONOMY MOD 233B 285 286A	FIXED MOBILE	FIXED MOBILE
151–153		
FIXED MOBILE except aeronautical mobile (R) RADIO ASTRONOMY Meteorological Aids MOD 233B 285 286A		
153–154		
FIXED MOBILE except aeronautical mobile (R) Meteorological Aids 285		
154–156		
FIXED MOBILE except aeronautical mobile (R) 285		

49.

MHz

Region 1	Region 2	Region 3
156–174		201A 287 290
		170–174
FIXED MOBILE except aeronautical mobile		FIXED MOBILE BROADCASTING
201A 285 287 288	201A 233A 287	

NOC 287 Reason: Existing provisions must be continued.

50.

MHz

Region 1	Region 2	Region 3
174–216	174–216	
BROADCASTING		FIXED MOBILE BROADCASTING
291 292 293 ~~294~~		~~294~~ 295 296
216–223	216–220	216–225
AERONAUTICAL RADIONAVIGATION BROADCASTING	FIXED MOBILE RADIOLOCATION	AERONAUTICAL RADIONAVIGATION Radiolocation
	220–225	
	AMATEUR RADIOLOCATION MOBILE	
297 298 299 300 301		306 307 308

SUP 294 To enhance sharing.

REASON: To provide for possible mobile use of band.

MHz:

Region 1	Region 2	Region 3
223-235 AERONAUTICAL RADIONAVIGATION Fixed Mobile 299 300 301 302 303 304 305	225-235 FIXED MOBILE	225-235 FIXED MOBILE AERONAUTICAL RADIONAVIGATION

Reason: Requirements remain unchanged.

235-267	FIXED MOBILE 201A 305 305A 308A 309

REASON: Requirements remain unchanged.

267-272	FIXED MOBILE Space Operations 309A 309B (telemetering) 308A

MHz:

Region 1	Region 2	Region 3
272-273	FIXED MOBILE SPACE OPERATIONS 309A (telemetering) 308A	
273-328.6	FIXED MOBILE 308A 310 310A	

Reason: Requirements remain unchanged.

328.6-335.4	AERONAUTICAL RADIONAVIGATION 311

REASON: Necessary for continuing and expanding needs of service.

335.4-399.9	FIXED MOBILE 308A

REASON: Requirements remain unchanged.

399.9-400.05	RADIONAVIGATION-SATELLITE 285C 311A
400.05-400.15	STANDARD FREQUENCY-SATELLITE 312B 313 314

MHz

53.

Region 1	Region 2	Region 3
400.15–401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (Maintenance telemetering) SPACE RESEARCH (Telemetering and tracking) 313 314	
401–402	METEOROLOGICAL AIDS SPACE OPERATION (Telemetering) 315A Fixed Meteorological-Satellite (Earth-to-Space) Mobile except aeronautical mobile 314 315 315B 315C 316	
402–403	METEOROLOGICAL AIDS Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile 314 315 315C 316	
403–406	METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 314 315 316	
406–406.1	MOBILE-SATELLITE (Earth-to-space) 314 317A 317B	

Reason: Services required as existing now.

MHz

54.

Region 1	Region 2	Region 3
406.1–410	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY MOD 233B 314	
410–~~420~~	FIXED MOBILE except aeronautical mobile 314	

Reason: Requirements remain unchanged.

420–430 FIXED MOBILE except aeronautical mobile Radiolocation 318 319	420–~~450~~ 435 RADIOLOCATION Amateur 318 ~~319A~~ 319B ~~320A~~ 323 324
~~430–440~~ 435 AMATEUR RADIOLOCATION 318 319 319B 320 ~~320A~~ 321 322	

MHz

Region 1	Region 2	Region 3
435-438	435-438	
AMATEUR RADIOLOCATION Amateur-Satellite	Amateur RADIOLOCATION Amateur Satellite	
318 319 ~~319B~~ 320 ~~320A~~ ~~321~~ ~~322~~	318 ~~319A~~ ~~319B~~ ~~320A~~ 323 324	

NOC 318 Reason: Requirement remains unchanged.

SUP 320A Reason: Consequential to allocation proposal.

MHz

Region 1	Region 2	Region 3
438-440	438-450	
RADIOLOCATION AMATEUR		RADIOLOCATION Amateur
318 319 ~~319B~~ 320 ~~320A~~ ~~321~~ 322		
440-450		
FIXED MOBILE except aeronautical mobile Radiolocation		
318 319 319A		318 319A ~~319B~~ ~~320A~~ 323 324

Reason: The allocation change in the band 435 MHz-438 MHz is required to accommodate greater flexibility in amateur satellite experimentation. Footnote suppression and other reallocations are consequential to this allocation.

450-460	FIXED MOBILE 318B 318C 318 319A	
460-470	FIXED MOBILE 318B 318 C Meteorological-Satellite (Space-to-Earth) 318A 324B	

NOC 318B, 318C
Reason: Continuing requirement

MHz

Region 1	Region 2	Region 3
470-582 BROADCASTING	470-~~890~~ 512 BROADCASTING MOBILE ~~329A 332 332A~~	470-585 BROADCASTING 335
	512-608 BROADCASTING 329A ~~332 332A~~	
582-606 BROADCASTING RADIONAVIGATION 325 327 328 329		585-610 RADIONAVIGATION 330B 336 337
606-790 BROADCASTING 329 330 330A 331 MOD 332 332A	608-614 BROADCASTING RADIO ASTRONOMY ~~329A 332 332A~~	610-890 FIXED MOBILE BROADCASTING
	614-806 BROADCASTING ~~329A 332 332A~~	
790-890 FIXED BROADCASTING 329 331 333 334	806-890 Broadcasting ~~BROADCASTING~~ MOBILE ~~329A 332 332A~~ 329B 329C	330B MOD 332 332A 338 339

REASON: See paragraphs 56 through 63 in the narrative portion. Footnote suppressions are consequential to allocation proposals.

ADD 329B In Region 2, the band 806-890 MHz is also allocated to the mobile-satellite service for the use and development of systems using space radiocommunications techniques. Such use and development is subject to agreement and coordination between the administrations concerned and those having services, operating in accordance with the table, which may be affected.

REASON: To provide spectrum allocation for possible development and use of a mobile satellite system for public services.

ADD 329C Special agreements between administrations concerned shall determine the conditions for implementations of broadcasting in the proximity of international boundaries to preclude harmful interference being caused to the mobile service.

REASON: To provide some protection to the mobile service operating in this band.

MOD 332 In Region 1, except the African Broadcasting Area*, the band 606-614 MHz and in Region 3, the band 610-614 MHz may be used by the radio astronomy service. Administrations shall avoid using the band concerned for the broadcasting service as long as possible, and thereafter, as far as practicable, shall avoid the use of such effective radiated powers as will cause harmful interference to radio astronomy observations.

~~In Region 2, the band 608-614 MHz is reserved exclusively for the radio astronomy service until the first Administrative Radio Conference after 1 January, 1974 which is competent to review this provision; however, this provision does not apply to Cuba.~~

REASON: Consequential to allocation proposals.

MHz

Region 1	Region 2	Region 3
890-940 896 FIXED BROADCASTING Radiolocation 329 331 333 339A	890-942 896 FIXED RADIOLOCATION MOBILE 339A 340	890-942 896 MOBILE FIXED BROADCASTING Radiolocation 339 339A

Reason: This allocation is required to meet the expanded needs of the Land Mobile Service.

896-902 FIXED BROADCASTING Radiolocation MOBILE 329 331 333 339A	896-902 FIXED RADIOLOCATION MOBILE Radiolocation 339A 340	896-902 FIXED MOBILE BROADCASTING Radiolocation 339 339A
902-928 FIXED Radiolocation BROADCASTING 329 331 333 339A MOD 340	902-928 FIXED RADIOLOCATION Amateur Mobile 339A MOD 340	902-928 FIXED MOBILE BROADCASTING Radiolocation 339 339A MOD 340

Reason: This allocation is required to meet the expanding needs of the Mobile Service and to provide for experimentation by the Amateur Radio Service.

928-941 FIXED Radiolocation BROADCASTING 329 331 333 339A	928-941 FIXED RADIOLOCATION MOBILE 339A	928-941 MOBILE FIXED Radiolocation BROADCASTING 339 339A

Reason: This allocation is required to meet the expanding needs of the Land Mobile Radio Service. Footnote suppression and addition are consequential to this change.

MOD 340 In Region 2, The frequency 915 MHZ is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ±13 MHz of that frequency. Radiocommunication services operating within these limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

Reason: To provide for ISM frequency worldwide.

MHz

Region 1	Region 2	Region 3
941-942 FIXED BROADCASTING Radiolocation MOBILE 329 331 333 339A	941-942 FIXED RADIOLOCATION MOBILE Radiolocation 339A 340	941-942 FIXED BROADCASTING Radiolocation MOBILE 339 339A
942-947 FIXED BROADCASTING MOBILE 329 331 333 339A	942-947 FIXED MOBILE 339A	942-947 MOBILE FIXED BROADCASTING 338 339 339A

REASON: This allocation is required to meet the expanding needs of the Mobile Radio Services. The bands 896-902 MHz and 941-947 MHz may be used for an air-ground Common Carrier service.

947-952 FIXED BROADCASTING 329 331 333 339A	947-952 FIXED 339A	947-952 FIXED BROADCASTING MOBILE 338 339 339A

REASON: This allocation is required to provide exclusive allocation to the Fixed Service.

MHz

Region 1	Region 2	Region 3
952-960 FIXED BROADCASTING 329 331 333 339A	952-960 FIXED MOBILE 339A	952-960 FIXED MOBILE BROADCASTING 338 339 339A

Reason: This allocation is required to provide for expanding needs of the Mobile Radio Service.

960-1215

AERONAUTICAL RADIONAVIGATION
341

Reason: Continuing requirement.

MHz

Region 1	Region 2	Region 3
1215-~~1300~~ 1240	RADIONAVIGATION SATELLITE (Space-to-Earth) RADIOLOCATION ~~Amateur~~ 342 343 344 345 346A	
1240 ~~1300~~ 1290	RADIOLOCATION Amateur 342 343 344 345 346A	
1290-1300	RADIOLOCATION Amateur Amateur Satellite 342 343 344 345 346A	
1300-1350	AERONAUTICAL RADIONAVIGATION MOD 346 Radiolocation 347 348 MOD 349A 349B	
1350-~~1400~~ 1370 FIXED MOBILE RADIOLOCATION 349 MOD 349A 349B	1350-~~1400~~ 1370 RADIOLOCATION 349 MOD 349A 349B	

Reason: Spectrum in the 1290-1300 band can be shared on a secondary basis for amateur satellite research. Band 1215-1350 needed for continued and expanding use of radiolocation and aeronautical radionavigation services.

ADD 346A In the bands 1215-1300 MHz, 3100-3300 MHz, 5250-5350 MHz and 9500-9800 MHz radiolocation operations using space techniques may be conducted in support of Space Research and Earth Exploration Satellite services provided that harmful interference is not caused to terrestrial Radiolocation and Aeronautical Navigation services or the Radionavigation Satellite service in the band 1215-1240 MHz.

Reason: This is the low-band required for multifrequency radars required for the measurement of rain, drop size, rain cloud echo and melting-layer height mapping. Also required for imaging radars of a future mission. The proposal is considered compatible with existing usage.

MOD 346 The use of the bands 1300-1350 MHz, 2700-2900 MHz and 9000-9200 MHz by the aeronautical radionavigation service is restricted to ground-based radars and, in the future, to associated transponders which transmit only on frequencies in these bands and only when actuated by radars operating in the same band.

ADD 349B In the band 1300-1400 MHz, Earth Exploration Satellite (EES) passive sensors may be used. Administrations are urged to bear in mind the needs of the EES Service in this band.

Reason: Preceding notes reflect national requirements.

MHz

Region 1	Region 2	Region 3
1370-1400	1370-1400	
FIXED MOBILE RADIOLOCATION	RADIOLOCATION	
349 MOD 349A 349B	349 MOD 349A 349B	

MOD 349A: Radio astronomy observations on the Hydrogen line displaced towards lower frequencies are carried out in a number of countries under national arrangements. Administrations should bear in mind the needs of the radio astronomy service in their future planning of the band ~~1350~~ 1330-1400 MHz.

Reason: Use of the 1330-1400 MHz band for radio astronomy will permit observation of the hydrogen line considered to be of major astronomical significance. The bands above otherwise are needed for the continued use and expansion of fixed mobile and radiolocation services.

1400-1427	EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) RADIO ASTRONOMY

Reason: This is an important band for the hydrogen line and for continum observations.

1427-1429	SPACE OPERATION (Telecommand) FIXED MOBILE except aeronautical mobile

MHz

Region 1	Region 2	Region 3
1429-1525 FIXED MOBILE except aeronautical mobile	1429-1435 FIXED MOBILE	1429-1525 FIXED MOBILE
	1435-1525 MOBILE 349C Fixed	

ADD 349C: In Region 2 where the mobile service is authorized in the bands 1435-1535 MHz and 1710-2390 MHz the primary use of this allocation is by the aeronautical mobile service for telemetering purposes.

Reason: The change is required to provide for aeronautical telemetering. The bands are otherwise required for continued use and expansion of the fixed and mobile services.

MHz

Region 1	Region 2	Region 3
1525-1535 SPACE OPERATION (Telemetering) 350A FIXED 350B Earth Exploration-Satellite Mobile except aeronautical mobile 350C	1525-1535 SPACE OPERATION (Telemetering) 350A Earth Exploration-Satellite Mobile 350D 349C Fixed	1525-1535 SPACE OPERATION (Telemetering) 350A FIXED 350B Earth Exploration-Satellite Mobile
1535-1542.5 MARITIME MOBILE-SATELLITE 352 352D 352E		

Reason: Band is required for continuing need of maritime mobile satellite service.

MHz

Region 1	Region 2	Region 3
1542.5-1543.5	AERONAUTICAL MOBILE SATELLITE (R) MARITIME MOBILE SATELLITE 352 352D 352F ADD 352L	
1543.5- 1558.5	AERONAUTICAL MOBILE SATELLITE (R) 352 352D 352G	
1558.5-~~1636.5~~ 1595	RADIONAVIGATION SATELLITE AERONAUTICAL RADIONAVIGATION 352 ~~352~~A 352B 352D	
1595-1636.5	AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION SATELLITE 352 ~~352~~A 352B 352D MOD352K	

MOD 352K Radio astronomy observations on important spectral lines due to the hydroxyl radicle OH at ~~frequencies~~ 1612.231 MHz and 1720.530 MHz are carried out in a number of countries under national arrangements; the bands observed being ~~1611.5-1612.5~~ 1610.5-1614 MHz and 1720-1721 MHz respectively. ~~Administrations should bear in mind the needs of radio astronomy service in their future planning of the bands 1558.5-1636.5 MHz and 1710-1770 MHz.~~

In making assignments in the band 1595 -1636.5 MHz and 1720-1721 administrations are urged to prevent harmful interference to radio astronomy observations, particularly from airborne or spaceborne transmitters.

Reason: Protection of observation of important spectral line.

ADD 352L In the frequency bands 1542.5-1543.5 MHz and 1644-1645 MHz distress and safety operations of the Maritime Mobile Satellite and the Aeronautical Mobile Satellite Services shall be given priority.

MOD 352A The band~~s 1558.5-1636.5 MHz, 4200-4400 MHz, 5000-5250 MHz and 15.4-15.7 GHz~~ are is reserved on a world-wide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities.

MHz

Region 1	Region 2	Region 3
1636.5-1644	MARITIME MOBILE-SATELLITE 352 352D 352H	
1644-1645	AERONAUTICAL MOBILE SATELLITE (R) MARITIME MOBILE-SATELLITE 352 352D 352I 352L	
1645-1660	AERONAUTICAL MOBILE-SATELLITE (R) 352 352D 352J	

MHz

Region 1	Region 2	Region 3
1660-1670		
RADIO ASTRONOMY METEOROLOGICAL AIDS MOD 353A 354 354A 354B		

MOD 353A In view of the successful detection by astronomers of two hydroxl spectral lines in the regions of 1665 MHz and 1667 MHz administrations are urged to ~~give all practicable protection in the band 1660-1670 MHz for future research in radio astronomy particularly by~~ eliminate air-to-ground transmissions in the meteorological aids service in the band 166~~0~~-1668.4 MHz as soon as practicable. Until such operations are phased out, radiosonde operations will, where possible, be notified to the radio astronomers.

1670-1690		
METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (Space-to-Earth) 324A MOBILE except aeronautical mobile 354		

MHz

Region 1	Region 2	Region 3
1690 - 1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (Space-to-Earth) Fixed Mobile except aeronautical mobile 324B 354A	1690 - 1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (Space-to-Earth) 324B 354A 354C	
1700 - 1710 ~~FIXED~~ ~~SPACE RESEARCH~~ (Space-to-Earth) ~~Mobile~~ METEOROLOGICAL SATELLITE (Space-to-Earth) ~~354B~~	1700 - 1710 ~~FIXED~~ MOBILE METEOROLOGICAL SATELLITE (Space-to-Earth) ~~SPACE RESEARCH~~ (Space-to-Earth) 354B	

REASON: Required worldwide for meteorological satellites.

1710 - ~~1770~~ 1720 ~~FIXED~~ ~~Mobile~~ MARITIME MOBILE-SATELLITE 356B (Space-to-Earth) ~~356A 356~~	1710 - ~~1770~~ 1720 FIXED MOBILE MARITIME MOBILE-SATELLITE 356B (Space-to-Earth) 352K 356A	

REASON: To provide for anticipated heavy demand for maritime satellite services. PFD limit to be established.

MHz

Region 1	Region 2	Region 3
MOD 356A: In Region 2, in Australia and Japan the band ~~1750~~ 1770 - 1850 MHz may also be used for earth-to-space transmissions and in Regions 2 and 3, the band 2200 - 2290 MHz may also be used for space-to-earth transmissions in the space research service, subject to agreement between the administrations concerned and those having services operating in accordance with the table, which may be effected.		
REASON: Consequential to allocation change.		
ADD 356B The use of the band 1710-1720 MHz and 1970-1990 MHz in the Maritime Mobile-Satellite service is for communications and/or radio determination purposes.		
REASON: To provide for multiservice functions.		
1720 - 1721 FIXED ~~Mobile~~ ~~352K~~ 356 MOD 352K	1720 - 1721 FIXED MOBILE ~~352K~~ ~~356A~~ MOD 352K	
1721 - 1770 FIXED SPACE OPERATIONS (Earth-to-Space) Mobile ~~352K~~ 356	1721 - 1770 FIXED SPACE OPERATIONS (Earth-to-Space) MOBILE ~~352K~~ ~~356A~~	

MHz

Region 1	Region 2	Region 3
1770 - 1790 FIXED SPACE OPERATIONS (Earth-to-Space) Meteorological-Satellite 356AA Mobile 356	1770 - 1790 FIXED SPACE OPERATIONS (Earth-to-Space) MOBILE Meteorological-Satellite 356AA MOD 356A	
1790 - ~~2290~~ 1850 FIXED SPACE OPERATION (Earth-to-Space) ~~Mobile~~ 356 ~~356AB~~ ~~356ABA~~ ~~356AC~~	1790 - ~~2290~~ 1850 FIXED SPACE OPERATION (Earth-to-Space) MOBILE MOD 356A ~~356AB~~ ~~356ABA~~	
1850-1970 FIXED Mobile 356 ~~356AB~~ ~~356ABA~~ ~~356AC~~	1850-1970 FIXED MOBILE ~~356A~~ ~~356AB~~ ~~356ABA~~	
Reason: To support U.S. requirements for telemetry, tracking and control of satellites.		

73.

MHz

Region 1	Region 2	Region 3
1970-1990 FIXED Mobile MARITIME MOBILE-SATELLITE (Earth-to-Space) 356B 356 ~~356AB 356ABA~~ ~~356AC~~	1970-1990 FIXED MOBILE MARITIME MOBILE-SATELLITE (Earth-to-Space) 356B ~~356A 356AB 356ABA~~	
1990-2025 FIXED Mobile 356 ~~356AB 356ABA~~ ~~356AC~~	1990-2025 FIXED MOBILE ~~356A 356AB 356ABA~~	

REASON: To provide pairing frequencies to 1710-1720 MHz.

74.

MHz

Region 1	*	Region 2	*	Region 3
2025-2110 FIXED EARTH EXPLORATION SATELLITE (Earth-to-space) SPACE RESEARCH (Earth-to-space) Mobile 356 ~~356AB 356AC 356ABA~~	*	2025-2110 FIXED MOBILE EARTH EXPLORATION SATELLITE (Earth-to-space) SPACE RESEARCH (Earth-to-space) ~~356A 356AB 356ABA~~	*	
2110-2120 FIXED Mobile SPACE RESEARCH (Earth-to-space)(Deep space only) 356 MOD 356AB ~~356ABA 356AC~~ ~~356ABA~~ ~~356A~~ MOD 356AB		2110-2120 FIXED MOBILE SPACE RESEARCH (Earth-to-space) (Deep space only)		

MOD 356AB In Regions 2 and 3 and in Spain, in the band 2025 2110-2120 MHz Earth-to-space transmissions in the earth exploration-satellite service may be authorized with equality of right to operate with stations of other space radiocommunication services in this band and subject to agreement between the administrations concerned and those having services, operating in accordance with the Table, which may be affected.

2120-2200 FIXED Mobile 356 ~~356AB 356ABA~~ ~~356AC~~		2120-2200 FIXED MOBILE ~~356A 356AB 356ABA~~		
2200-2290 FIXED Mobile SPACE RESEARCH (Space-to-Earth) (Space-to-Space) SPACE OPERATIONS (Space-to-Earth) (Space-to-Space) 356 ~~356AB- 356ABA~~		2200-2290 FIXED MOBILE SPACE RESEARCH (Space-to-Earth) (Space-to-Space) SPACE OPERATIONS (Space-to-Earth) (Space-to-Space) MOD 356A ~~356AB- 356ABA~~		

Reason: Previous band changes are requirements of the U.S.

MHz

Region 1	* *	Region 2	* *	Region 3
2290-2300 FIXED SPACE RESEARCH (Space-to-Earth) (Deep space only) Mobile except aeronautical mobile 356C		2290-2300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (Space-to-Earth) (Deep space only)		

Reason: Continued use of the band for fixed and mobile services and requirements for space research.

		2300-~~2450~~ 2310 RADIOLOCATION Amateur Fixed Mobile ~~357~~ 360		

MHz

Region 1	Region 2	Region 3
2300-~~2450~~ 2390 FIXED Amateur Mobile Radiolocation ~~357~~ 358 359	2310-~~2450~~ 2390 RADIOLOCATION Amateur Fixed ~~Mobile~~ MOBILE ~~357~~ 349C 360	
2390-2400 FIXED Amateur Mobile Radiolocation Amateur-Satellite ~~357~~ 358 359	2390-2400 RADIOLOCATION Amateur Fixed Mobile Amateur-Satellite ~~357~~ 360	
2400-2450 FIXED Amateur Mobile Radiolocation 357 358 359 357A	2400-2450 RADIOLOCATION Amateur Fixed Mobile 357 360 357A	

ADD 357A The frequencies 2450 MHz and 5800 MHz are designated for the wireless transmission of power. Emissions must be confined within ±10 MHz of the frequencies designated. This electrical energy transfer may be effected from space-to-earth. Use of the frequencies for wireless transmission of power shall not cause harmful interference to stations in other bands which are operating in accordance with these regulations.

REASON: Bands are needed for continued use of fixed, mobile, amateur and radiolocation services. Amateur satellite operation on a world wide basis is feasible in the 2390-2400 MHz band on a secondary basis.

NOC 357 Continuing need for ISM frequencies.

MHz

Region 1	* *	Region 2	* *	Region 3
2450-2500		2450-2500		
FIXED MOBILE Radiolocation Land Mobile-Satellite		FIXED MOBILE Land Mobile-Satellite RADIOLOCATION		
357 361 357A		357 357A		

Reason: Expanding needs for land mobile satellite service requires spectrum space. In addition there is continuing demand for fixed and mobile services and radiolocation requirements.

MHz

Region 1	Region 2	Region 3
2500 - 2550 FIXED 364C MOBILE except aeronautical mobile BROADCASTING-SATELLITE 361B 361A 362 364F	2500 - 2535 FIXED 364C FIXED-SATELLITE (Space-to-Earth) MOBILE except aeronautical mobile BROADCASTING-SATELLITE 361B 361A 364E 364F 2535 - 2550 FIXED 364C MOBILE except aeronautical mobile BROADCASTING-SATELLITE 361B 361A 364F	
2550 - 2655 FIXED 364C MOBILE except aeronautical mobile BROADCASTING-SATELLITE 361B 362 363 364 364F		

REASON: Continued and expanding use of fixed service systems, radiolocation facilities, mobile operations and satellite systems, with heavy demands on available spectrum.

MHz

Region 1	Region 2	Region 3
2655 - ~~2690~~ 2670	2655 - ~~2690~~ 2670	
FIXED 364C 364D	FIXED 364C 364D	
MOBILE except aeronautical mobile	FIXED-SATELLITE (Earth-to-Space)	
BROADCASTING-SATELLITE 361B	MOBILE except aeronautical mobile	
	BROADCASTING-SATELLITE 361B	
363 364 364F ~~364G~~	364E 364F ~~364G~~	

MOD 364E: In the design of systems in the broadcasting satellite service, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2670 ~~2690~~ - 2700 MHz.

REASONS: To allow radio astronomy to share the 2670 - 2700 MHz band with other services without harmful interference. Bands are otherwise required for the continued use and expansion of the fixed and satellite services (Earth-to-Space).

2670 - 2690	2670 - 2690
MOBILE except aeronautical mobile	RADIO ASTRONOMY
FIXED 364C 364D	MOBILE except aeronautical mobile
BROADCASTING SATELLITE 361B 364E	FIXED 364C 364D
Ear. Expl. Sat.(Passive)	BROADCASTING SATELLITE 361B 364E
RADIO ASTRONOMY	FIXED SATELLITE (Earth-to-Space)
Space Res. (Passive)	Earth Exploration Satellite (Passive)
363, 364, 364F, ~~364G~~ MOD 2338	Space Research (Passive)
	364E 364F ~~364G~~ MOD 2338

MHz

Region 1	Region 2	Region 3
2690-2700	SPACE RESEARCH (Passive)	
	RADIO ASTRONOMY	
	EARTH EXPLORATION SATELLITE (Passive)	
	MOD 2338 363 364A 364B	

REASONS: Changes are necessary to permit radio astronomers the use of a wider band for continuous measurements for galactic studies of ionized hydrogen and non-thermal radio sources and afford protection from adjacent band interference. Bands are also required for the continued use and expansion of fixed and mobile services and satellite systems.

2700-2900	AERONAUTICAL RADIONAVIGATION MOD 346
	Radiolocation
	366
2900-~~3100~~ 2920	RADIONAVIGATION 367 367A 367B
	(Radar Beacons, Ship Transponders)
	Radiolocation
	367C
2920-3100	RADIONAVIGATION 367 367A 367B
	(Shipboard radars)
	Radiolocation
	367C

ADD 367C The bands 2900-3100 MHz and 5460-5600 MHz are also allocated to the Fixed-Satellite Service for connection between one or more earth stations at specified fixed points on the earth and satellites which are used in the Maritime Mobile-Satellite Service. Such use and development shall be subject to agreement and coordination between administrations.

REASON: To provide for frequencies between ship and satellite for the use of the Maritime satellite service.

MHz

Region 1	Region 2	Region 3
3100-3300	RADIOLOCATION 346A 354 368 369 369A	

REASON: Continued and expanding use of aeronautical radionavigation and radiolocation facilities.

ADD 369A Radio astronomy observations on molecular lines of carbon hydride (CH) (rest frequencies 3263.788, 3335.475, and 3349.155 MHz) are carried out in a number of countries under national arrangements. In making assignments in the bands 3259-3269, 3331-3341, and 3344-3354 MHz, administrations are urged to take all practicable steps to prevent harmful interference, particularly from airborne and spaceborne transmitters, to radio astronomy observations.

MHz

Region 1	Region 2	Region 3
3300 - 3400 RADIOLOCATION 370 371 369A	3300 - 3400 RADIOLOCATION Amateur Mobile 376 369A	3300-3400 RADIOLOCATION Amateur 376 369A

REASON: Continued use of band by amateur and radiolocation operations. Mobile service spectrum space is urgently needed for mobile TV pickup.

3400 - ~~3600~~ 3410 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE Radiolocation Amateur-Satellite Amateur 372 373 374 375	3400 - ~~3600~~ 3410 FIXED-SATELLITE (Space-to-Earth) RADIOLOCATION Amateur Amateur-Satellite 376

REASON: The band 3400 - 3410 can be shared on a secondary basis with the amateur satellite service which needs this spectrum for continued research in this field.

3410 - 3500 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE Radiolocation 372 373 374 375	3410 - 3500 FIXED-SATELLITE (Space-to-Earth) RADIOLOCATION Amateur 376

MHz

Region 1	Region 2	Region 3
3500 - 3600 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE Radiolocation 372 373 374 375	3500 - 3700 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION	3500 - 3700 FIXED-SATELLITE (Space-to-Earth) RADIOLOCATION Fixed Mobile 377 378
3600 - 4200 FIXED FIXED-SATELLITE (Space-to-Earth) Mobile 374		
	3700 - 4200 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE 379	

REASON: Continued and expanding use of fixed and mobile services and satellite Space-to-Earth links. Required for planned use for low-cost short-range radionavigation terminal radars (ASR) (satellite airports).

MHz

Region 1	Region 2	Region 3
4200 - 4400	AERONAUTICAL RADIONAVIGATION 378A 379A 379B 381 382 383	

ADD 379B The use of the band 4200-4400 MHz by the Aeronautical Radionavigation service is reserved exclusively for airborne radio altimeters. However, Earth Exploration Satellite (Passive) and Space Research (Passive) services are allocated on a permitted basis provided that no protection will be required from the radio altimeter.

REASON: To provide for the ERS and Space Research services and to restrict the Aeronautical Radionavigation Service for the exclusive use of airborne radio altimeters.

4400 - 4700	FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE
4700 - ~~4990~~ 4950	FIXED MOBILE MOD 2338 354 MOD 382A ~~382B~~

MOD 382A Radio astronomy observations on the formaldehyde line (rest frequency 4829.649 MHz) are being carried out in a number of countries under national arrangements. ~~Administrations should bear in mind the needs of the radio astronomy service in their future planning of the 4825-4835 MHz.~~ In making assignments in the band 4825-4835 MHz, administrations are urged to take all practical steps to prevent harmful interference, particularly from airborne transmitters, to radio astronomy observations.

4950 - 4990	FIXED MOBILE RADIO ASTRONOMY 2338 354 382A ~~382B~~ 382C

ADD 382C Sharing criteria among those services operating in the band 4950-4990 MHz shall be up to the discretion of the administrations concerned.

MHz

Region 1	Region 2	Region 3
4990 - 5000	4990 - 5000	4990 - 5000
FIXED MOBILE RADIO ASTRONOMY ~~2338~~	RADIO ASTRONOMY 383A	FIXED MOBILE RADIO ASTRONOMY ~~2338~~

REASON: Expansion of the band 4990-5000 MHz also provides access to 4950-4990 MHz which is necessary to support Radio Astronomy continuum observations. If given status in the Table RRs 2338 and 3828 are no longer required.

MHz

5000 - 5250	AERONAUTICAL RADIONAVIGATION MOD 352A 352B 383B

REASON: Continued use for microwave landing system and distance measuring equipment.

Region 1	Region 2	Region 3
5250 - 5255	RADIOLOCATION Space Research 384 346A	
5255 - 5350	RADIOLOCATION 384 384A 346A	
5350 - 5460	AERONAUTICAL RADIONAVIGATION 385 Radiolocation	
5460 - 5470	RADIONAVIGATION 385 Radiolocation 367C	

REASON: This part of spectrum is required for continued use of radiolocation, space research, radionavigation and aeronautical radionavigation services.

MHz

Region 1	Region 2	Region 3
5470 - 5650	MARITIME RADIONAVIGATION Radiolocation 386 387 ~~357C~~	
5650 - 5670	RADIOLOCATION ~~Amateur-Satellite~~ Amateur 388 389	
5670 - 5725	Amateur Space Research (Deep Space) RADIOLOCATION 388 389 ~~389A~~	
5725 - 5850 ~~FIXED SATELLITE (Earth-to-Space)~~ (Space-to-Earth) ~~RADIOLOCATION~~ Amateur 354 388 390 391 ~~391A~~ ~~357A~~	5725 - 5850 ~~FIXED-SATELLITE~~ (Space-to-Earth) Amateur RADIOLOCATION 389 391 ~~391A~~ ~~357A~~	

NOC 391

REASON: Continuing need for ISM.

MHz

Region 1	Region 2	Region 3
5850 - 5925 FIXED FIXED SATELLITE ~~(Earth-to-Space)~~ (Space-to-Earth) ~~MOBILE~~ 391	5850 - 5925 ~~FIXED-SATELLITE~~ (Space-to-Earth) ~~Amateur~~ RADIOLOCATION 391	5850 - 5925 FIXED FIXED SATELLITE ~~(Earth-to-Space)~~ (Space-to-Earth) ~~MOBILE~~ Radiolocation 391
5925 - 6425	FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE	

REASON: Continued use of fixed, mobile and fixed satellite services.

6425 - ~~7250~~ 5925	FIXED MOBILE FIXED SATELLITE (Earth-to-Space) 379A ~~392AA~~ ~~392B~~ 393 ~~393A~~

ADD ~~393A~~ In the band 6.425-7.125 GHz, passive microwave sensor measurements are carried out over the Earth's oceans. Administrations should bear in mind the needs of the earth exploration satellite (passive) and space research (passive) services in their future planning of this band.

oy.

MHz					
Region 1	* *	Region 2	* *	Region 3	
6925-7250					
		FIXED MOBILE			
		379A	392B 393	MOD 392AA	393A
MOD 392AA	In Brazil, Canada and the United States of America, the band 6425 6925 - 7125 MHz is also allocated on a secondary basis, to the fixed-satellite service for space-to-Earth transmissions. In Region 2, the power flux density produced by space stations in this band shall be in accordance with the provisions of No. 470MY. In Regions 1 and 3, it shall be at least 6 dB lower. Receiving earth stations in this band may not impose restrictions on the locations or technical parameters of existing or future terrestrial stations of other countries.				
7250-7300					
		FIXED-SATELLITE (Space-to-Earth)			
		392D 392G			
7300-7450					
		FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE			
		392D			
7450-7550					
		FIXED FIXED-SATELLITE (Space-to-Earth) METEOROLOGICAL-SATELLITE (Space-to-Earth) MOBILE			
		392D			
7550-7750					
		FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE			
		392D			

Reason: Consequential to allocation change.

90.

MHz					
Region 1	* *	Region 2	* *	Region 3	
7750-7900					
		FIXED MOBILE			

MHz		
Region 1	Region 2	Region 3
7900 - 7975	FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE	
7975 - 8025	FIXED-SATELLITE (Earth-to-Space) 392E	
8025 - 8175 FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE Earth Exploration-Satellite (Space-to-Earth) 394B	8025 - 8175 EARTH EXPLORATION-SATELLITE (Space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE	8025 - 8175 FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE Earth Exploration-Satellite (Space-to-Earth)
8175 - 8215 FIXED FIXED-SATELLITE (Earth-to-Space) METEOROLOGICAL-SATELLITE (Earth-to-Space) MOBILE Earth Exploration-Satellite (Space-to-Earth) 394B	8175 - 8215 EARTH EXPLORATION-SATELLITE (Space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-Space) METEOROLOGICAL-SATELLITE (Earth-to-Space) MOBILE	8175 - 8215 FIXED FIXED-SATELLITE (Earth-to-Space) METEOROLOGICAL-SATELLITE (Earth-to-Space) MOBILE Earth Exploration-Satellite (Space-to-Earth)

MHz		
Region 1	Region 2	Region 3
8215 - 8400 FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE Earth Exploration-Satellite (Space-to-Earth) 394 394B	8215 - 8400 EARTH EXPLORATION-SATELLITE (Space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE	8215 - 8400 FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE Earth Exploration Satellite (Space-to-Earth) 394
REASON: Continued need for existing service.		
8400 - 8500	FIXED MOBILE except aeronautical mobile (R) SPACE RESEARCH (Space-to-Earth) (deep space only) Land Mobile Satellite (Earth-to-Space) 394A 394D	
8500 - 8750	RADIOLOCATION 354 395	
8750 - 8850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 396 397	
REASON: Continuing need for existing service.		
8850 - 9000	RADIOLOCATION 397 398	
9000 - 9200	AERONAUTICAL RADIONAVIGATION MOD 346 Radiolocation 397	

MHz

Region 1	Region 2	Region 3
9200 - 9300	RADIOLOCATION 397 398	
REASON: Continuing need for existing services.		
9300 - 9500	RADIONAVIGATION 367A 367B Radiolocation 399	
9500 - 9800	RADIOLOCATION 398 346A	
9800 - 10000	RADIOLOCATION Fixed 400 401 401A	
10000 - 10500	RADIOLOCATION Amateur 401A 402 403	

GHz

Region 1	Region 2	Region 3
10.5 - 10.55 FIXED MOBILE Radiolocation	10.5 - 10.55 RADIOLOCATION 404	
REASON: Continued need for existing services.		
MOD 404		
REASON: Preserve system compatibility.		
10.55 - 10.6	FIXED MOBILE Except Aeronautical Mobile Radiolocation	
10.6 - 10.68	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Radiolocation 404A 404B	
10.68 - 10.7	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY ~~405B~~ 404B	
ADD 404B Consequential to allocation change. ADD 404C All airborne emissions are excluded.		
REASON: Radio astronomy can share the 10.6 - 10.7 continuum band as long as airborne transmissions are excluded from the mobile and radiolocation services. The bands above are otherwise needed for continued and expanding use of the fixed, mobile and radiolocation services.		
10.7 - 10.95	~~MOBILE~~ FIXED FIXED SATELLITE (Space-to-Earth)	
REASON: This frequency band is currently in considerable use in the radio-relay service in the United States. The fixed-satellite allocation is needed on a world-wide basis.		

GHz

Region 1	Region 2	Region 3
10.95 - 11.2 FIXED MOBILE FIXED-SATELLITE (Space-to-Earth) ~~(Earth-to-Space)~~	10.95 - 11.2 FIXED MOBILE FIXED-SATELLITE (Space-to-Earth)	

REASON: Unidirectionality needed for compatibility.

11.2 - 11.45	FIXED ~~MOBILE~~ FIXED-SATELLITE (Space-to-Earth)

REASON: This frequency band is currently in considerable use in the radio-relay service in the United States. The fixed-satellite allocation is needed on a world-wide basis.

11.45 - 11.7	FIXED ~~MOBILE~~ FIXED-SATELLITE (Space-to-Earth)

REASON: Mobile allocation not needed.

11.7 - 12.5 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 405EA	11.7 - 12.2 ~~FIXED~~ Mobile ~~MOBILE~~ except aeronautical mobile ~~BROADCASTING~~ BROADCASTING-SATELLITE FIXED-SATELLITE (Space-to-Earth) ~~405EB~~ 405BC	11.7 - 12.2 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 405BA

GHz

Region 1	Region 2	Region 3

REASON: Satellite communications are envisaged to large numbers of inexpensive earth stations widely dispersed throughout the United States. TV mobile pick-up service is currently provided in this band on a secondary basis.

SUP 405EB

REASON: To enhance versatility in use of this band.

	12.2 - 12.5 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE	

REASON: To meet the projected requirements of the Broadcasting-Satellite Service.

12.5 - 12.75 FIXED-SATELLITE ~~(Space-to-Earth)~~ (Earth-to-Space) 405ED 405EE	12.5 - 12.75 FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE except aeronautical mobile	12.5 - 12.75 FIXED FIXED-SATELLITE ~~(Space-to-Earth)~~ (Earth-to-Space) MOBILE except aeronautical mobile

REASON: Unidirectionality needed for compatibility.

12.75 - 13.25	FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE SPACE RESEARCH (deep space only) (Space-to-Earth)

REASON: Continuing need for existing services. The Fixed-Satellite Service is needed on a worldwide basis. Space research for reception at selective sites.

13.25 - 13.4	Space Research AERONAUTICAL RADIONAVIGATION 406 407 407A

REASON: Required for airborne doppler radar.

SUP 407A
Reason: Consequential to allocation change

GHz

Region 1	Region 2	Region 3
14.5 - 15.2	FIXED MOBILE Space Research ~~408B~~ MOD 408C	
15.2 - 15.35	FIXED MOBILE Space Research Earth Exploration Satellite (Passive) ~~408B~~ ~~408C~~	
15.35 - 15.4	EARTH EXPLORATION SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) RADIO ASTRONOMY 409C	
15.4 - 15.7	AERONAUTICAL RADIONAVIGATION SATELLITE AERONAUTICAL RADIONAVIGATION MOD 352A 352B 407	

REASON: Other passive services can share the band 15.35 - 15.40 GHz. The band 15.4 - 15.7 GHz is required for continued and expanded use for microwave landing system (MLS) and airborne weather radar.

15.7 - 16.6	RADIOLOCATION 407 408 409CA	

REASON: The frequency band is required for radiolocation.

16.6 - 17.1	SPACE RESEARCH (DEEP SPACE ONLY)(EARTH-TO-SPACE) RADIOLOCATION 407 408	

ADD 409CA In the U.S., the portion 15.7-16.2 GHz may be used also for Airport Surface Detection Equipment (ASDE).

GHz

Region 1	Region 2	Region 3
13.4 - 14	Earth Exploration Satellite (Active Sensors) Standard Frequency Satellite (Earth-to-Space) RADIOLOCATION Space Research 407 ~~407A~~ 408 409	
14 - ~~14.3~~ 14.2	Space Research FIXED SATELLITE (Earth-to-Space) RADIONAVIGATION MOD 408A 407 ~~407A~~	
14.2 - 14.3	FIXED SATELLITE (Earth-to-Space) RADIONAVIGATION MOD 408A 407 ~~407A~~	

REASON: This frequency band is currently used for marine radar. This frequency band will be used for long-haul and international voice and data channel communications. The band 13.4-14 is required for radiolocation type active sensors.

MOD 408A Spa2 The use of the bands 14-14.3 GHz ~~and 14.3-14.4 GHz~~ by the radionavigation service ~~and radionavigation satellite service respectively~~, shall be such as to provide sufficient protection to space stations of the fixed-satellite service (see Recommendation No. Spa2 - 15, paragraph 2.14).

REASON: Consequential to allocation change.

14.3 - 14.4	FIXED-SATELLITE (Earth-to-Space) ~~RADIONAVIGATION-SATELLITE~~ ~~408A~~	
14.4 - 14.5	Space Research (Space to-Space) MOBILE FIXED FIXED-SATELLITE (Earth-to-Space) ~~408B~~, MOD 408C	

Reason: These bands will be used for the domestic and international voice and data channel communications. The bands 13.25-14.2 and 14.4-14.5 GHz will be used for space research.

MOD 408C Radio astronomy observations on the formaldehyde line (rest frequency 14489 GHz) are being carried out in a number of countries under national arrangements. In making assignments to ~~stations in the fixed and mobile~~ other services, administrations are urged to take all practicable steps to protect radio astronomy observations from harmful interference, particularly from airborne or spaceborne transmitters, in the band ~~14.485 14.515~~ 14.473-14.503 GHz.

SUP 408B
REASON: Consequential to allocation change.

GHz

Region 1	Region 2	Region 3
17.1 - 17.25	RADIOLOCATION 407 408	
17.25 - 17.7	EARTH EXPLORATION SATELLITE (ACTIVE SENSORS) SPACE RESEARCH (ACTIVE SENSORS) RADIOLOCATION 407 408	
REASON: Space services listed appear to be compatible with existing services		
17.7 -17.9	FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE	
17.9-18.7	METEOROLOGICAL SATELLITE (Space-to-Earth) FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE	
18.7 - 19.7	FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE	
Reason: Required for read out of telemetry from meteorological satellite.		

GHz

Region 1	* *	Region 2	* **	Region 3
19.7 - 21.2 20.2		FIXED-SATELLITE (Space-to-Earth) 409E		
20.2 - 21.2		FIXED-SATELLITE (Space-to-Earth) MOBILE-SATELLITE (Space-to-Earth) Standard Frequency Satellite (Space-to-Earth) 409E		
Reason: Required for Mobile-Satellite sharing.				

GHz

Region 1	Region 2	Region 3
21.2 - 21.4	SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) ~~(Space-to-Earth)~~ FIXED MOBILE	
21.4 - 21.7	~~EARTH EXPLORATION SATELLITE (Space-to-Earth)~~ FIXED MOBILE INTER-SATELLITE	
21.7 - 22	FIXED MOBILE ~~EARTH EXPLORATION SATELLITE (Space-to-Earth)~~	

REASON: This band will be used for terrestrial radio relay and for land mobile experimental, developmental and research uses and for satellite-to-satellite communications.

22 - ~~22.5~~ 22.21	FIXED MOBILE 4.194	

REASON: This frequency band will be used for terrestrial radio relay and for land mobile experimental, developmental and research uses.

22.21 - 22.5	FIXED MOBILE (except aeronautical mobile) EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) RADIO ASTRONOMY 4.194	

REASON: This frequency band will be used for radio astronomy observations of the water vapor line (rest frequency 22.235 GHz) and for terrestrial radio relay service and for land mobile experimental, developmental and research uses.

SUP 4.10A

REASON: Consequential to allocation changes.

GHz

Region 1	Region 2	Region 3
22.5 ~~23.0~~ 22.7	FIXED MOBILE	22.5 - 23.0 22.7 FIXED MOBILE BROADCASTING-SATELLITE MOD 4.10B

REASON: This frequency band will be used for terrestrial radio relay systems and for land mobile experimental, developmental and research uses.

MOD 4.10B Spa2 In Region 3, the broadcasting-satellite service is authorized in the band 22.5-23.0 22.7 GHz, subject to power flux density limits for the protection of the terrestrial services in this band.

GHz

Region 1	Region 2	Region 3
22.7 - 23 FIXED MOBILE INTER-SATELLITE ADD 410D		22.7 - 23 FIXED MOBILE INTER-SATELLITE ~~BROADCASTING-SATELLITE~~ ~~410B~~ ADD 410D

REASON: This frequency band will be used for communications between satellites.

ADD 410D The bands 22.81-22.86 GHz, 23.07-23.12 GHz and 24.11-24.16 GHz are also allocated to the Radio Astronomy service for observations of spectral lines due to Ammonia (rest frequencies 22.834, 23.098 and 24.139 GHz).

23 - 23.6	FIXED MOBILE 410D

REASON: This frequency band will be used for terrestrial microwave and operational fixed users.

23.6 - 24	EARTH EXPLORATION SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) RADIO ASTRONOMY 407

REASON: This is a very important continuum band that also covers the important ammonia (NH_3) lines. Passive space services can share.

24 - 24.05	AMATEUR AMATEUR-SATELLITE 410C

REASON: To promote national and international exchange of thoughts and ideas.

GHz

Region 1	Region 2	Region 3
24.05 - 24.25	RADIOLOCATION Amateur 410C 407 410D	

REASON: To promote exchange of thoughts and ideas.

24.25 - 25.25	RADIONAVIGATION 411 412

REASON: Required for existing radionavigation.

25.25 - 27.5	Standard Frequency Satellite (Earth-to-Space) FIXED MOBILE EARTH EXPLORATION SATELLITE (Space-to-Space)

27.5 - 29.5	FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE 411A

REASON: To provide an uplink band to pair with the band around 20 GHz. This frequency band will be used for the terrestrial radio relay system.

29.5 - 30	FIXED-SATELLITE (Earth-to-Space) 409E 411A

30 - 31	FIXED-SATELLITE (Earth-to-Space) MOBILE-SATELLITE (Earth-to-Space) Standard Frequency Satellite (Space-to-Earth) 409E

ADD 411A: Within the frequency band 27.5-30 GHz, a 50 MHz wide band may be used for space-to-space communications in the earth exploration satellite service for telemetry, tracking and control purposes.

GHz

Region 1	Region 2	Region 3
31 - 31.3	Standard Frequency Satellite (Space-to-Earth) FIXED MOBILE Space Research 412H 412I	
31.3 -31.5	SPACE RESEARCH (PASSIVE SENSOR) EARTH EXPLORATION SATELLITE (PASSIVE SENSOR) RADIO ASTRONOMY 412A	
31.5 - 31.8 SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile RADIO ASTRONOMY EARTH EXPLORATION SATELLITE (PASSIVE)	31.5 - 31.8 SPACE RESEARCH (PASSIVE) RADIO ASTRONOMY EARTH EXPLORATION SATELLITE (PASSIVE) 405C	31.5 - 31.8 SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile RADIO ASTRONOMY EARTH EXPLORATION SATELLITE (PASSIVE)

REASON: The frequency region 31.3-31.8 GHz is the first atmospheric window in the millimeter radio regions where observations can be made. This spectral region has been very useful in defining the high frequency continuum spectra of galactic and extragalactic objects. Passive services can share with Radio Astronomy.

31.8 - 32.3	RADIONAVIGATION Space Research 412B
32.3 - 33	RADIONAVIGATION
33 - 33.4 RADIO ASTRONOMY RADIONAVIGATION	33 - 33.4 RADIONAVIGATION 412F

REASON: Required for sweep radar for small aircraft.

33.4 - 34.2	RADIOLOCATION 407 408 412 412G

GHz

Region 1	Region 2	Region 3
34.2 - 35.2	RADIOLOCATION Space Research SPACE RESEARCH (ACTIVE SENSORS) METEOROLOGICAL AIDS EARTH EXPLORATION SATELLITE (ACTIVE SENSORS) 407 408 412 412C 412D	
35.2 - 36	RADIOLOCATION 407 408 412	
36 - 40 37	FIXED MOBILE SPACE RESEARCH (PASSIVE) EARTH EXPLORATION SATELLITE (PASSIVE) 391A 412E	
37 - 40	FIXED MOBILE 391A 412E	
40 - 41	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE MOBILE-SATELLITE (Space-to-Earth)	

REASON: This band will be used for terrestrial systems and shared with the mobile- and fixed-satellite services.

41 - 43	BROADCASTING-SATELLITE FIXED MOBILE ADD 412L

Reason: This frequency band will be used for terrestrial system.

ADD 412L Radio astronomy observations on the silicon monoxide lines are carried on in a number of countries under national arrangements. In making assignments , administrations are urged to protect radio astronomy observations from harmful interference, particularly from airborne or spaceborne transmitters, in the 42.77 - 42.87, 43.07-43.17, and 43.37 - 43.47 GHz bands.

GHz

Region 1	* *	Region 2	* *	Region 3
43- 48 - 45				
		AERONAUTICAL-MOBILE-SATELLITE MARITIME MOBILE SATELLITE AERONAUTICAL RADIONAVIGATION SATELLITE MARITIME-RADIONAVIGATION SATELLITE FIXED-SATELLITE (Earth-to-Space) MOBILE-SATELLITE (Earth-to-Space) 412L		

Reason: To satisfy requirements.

45-48				
		AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION-SATELLITE		

Reason: This frequency band will be used for communicating to ships and aircraft for position determination and surveillance.

48-49.8		AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION-SATELLITE ADD 412II		

ADD 412II Radio Astronomy observations on molecular lines of carbon sulfide (CS) (rest 48.991, 97.981 and 146.969 GHz) are being carried out in a number of countries under national arrangements. In making assignments in the bands 48.94-49.04, 97.88-98.08, and 146.82-147.12 GHz, administrations are urged to prevent harmful interference, particularly from airborne and spaceborne transmissions to radio astronomy observations.

49.8-50		AMATEUR AMATEUR-SATELLITE		
50- 51 - 50.2				
		FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE		

Reason: This frequency band will be used by the terrestrial systems.

GHz

Region 1	Region 2	Region 3
50.2 - 50.4	FIXED FIXED-SATELLITE (Earth-to-Space) MOBILE SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive)	

GHz

Region 1	* *	Region 2	* *	Region 3
50.4 - 51		FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE MOBILE-SATELLITE (Earth-to-Space)		
51 - 52-51.4		EARTH-EXPLORATION-SATELLITE SPACE RESEARCH FIXED MOBILE FIXED-SATELLITE (Earth-to-Space) MOBILE-SATELLITE (Earth-to-Space)		

Reason: Required to satisfy multiple services.

51.4-52	EARTH EXPLORATION-SATELLITE (Passive) SPACE RESEARCH (Passive) MOD 412J

Reason: This frequency band will continue to be used to explore the resources of the Earth by satellite techniques.

52-54.25	EARTH EXPLORATION-SATELLITE (Passive) SPACE RESEARCH (Passive) MOD 412J

Reason: This frequency band will continue to be used in conducting research work in space.

MOD 412J All emissions in the bands 51.4-52 GHz, 52-54.25 GHz, 58.2-59 GHz, 64-65 GHz, 86-92 GHz, 101-102 GHz, 105-116 GHz, 130-140 GHz, 182-185 GHz, and 230-240 GHz are prohibited. The use of passive sensors by other services is also authorized.

GHz

Region 1	Region 2	Region 3
54.25 - 58.2	SPACE RESEARCH (Passive) FIXED MOBILE INTER-SATELLITE EARTH EXPLORATION SATELLITE (Passive)	

REASON: This frequency band will be used for terrestrial systems, and space services as shown.

58.2 - 59	EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (passive) MOD 412J

REASON: This frequency band will continue to be used for conducting research in space.

59 - 64	FIXED MOBILE INTER-SATELLITE ADD 410E

REASON: This frequency band will be used for terrestrial service and for satellite-to-satellite communications.

ADD 410E The frequency 61.25 GHz is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ± 250 MHz of that frequency. Radiocommunication services operating within these limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

REASON: New applications; heating of small fibers and pellets; insect control; host of specific biological applications based on recent evidence of frequency specific effects.

64 - 65	SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) MOD 412J

GHz

Region 1	Region 2	Region 3

REASON: This frequency band will be used for conducting passive research in space.

65 - 66	EARTH EXPLORATION-SATELLITE SPACE RESEARCH

REASON: This frequency band will be used for exploring the resources of the earth by satellite techniques.

66 - 71	AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION-SATELLITE

REASON: This frequency band will be used for maritime and aeronautical mobile services.

71- 84 - 72	EARTH EXPLORATION SATELLITE (Active Sensors) SPACE RESEARCH (Active Sensors) RADIOLOCATION Amateur Amateur-Satellite

Reason: Band required for services specified.

72-76	RADIOLOCATION Amateur Amateur-Satellite ADD 412M

Reason: This frequency band will be used for amateur services to promote national and international exchange of thoughts and ideas.

ADD 412M Radio astronomy observations on the H_2CO formaldehyde lines are being carried out by a number of countries under national arrangements. In making assignments, administrations are urged to protect radio astronomy observations from harmful interference in the 72.35-72.45, 140.6-141, 145.45-145.75, and 150.35-150.65 GHz bands.

GHz	Region 1	* *	Region 2	* *	Region 3
76- 72			MOBILE-SATELLITE (Space-to-Earth) FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE		
72- 80			FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE		
80- 81			FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE		
81-84			MOBILE-SATELLITE (Earth-to-Space) FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE		

Reason: These frequency bands will be used for terrestrial and space services.

84-86			BROADCASTING-SATELLITE FIXED MOBILE		

Reason: This frequency band will be used for terrestrial services and for providing service to multi-destination low cost users.

86-92			EARTH EXPLORATION-SATELLITE (Passive) RADIO ASTRONOMY SPACE RESEARCH (Passive) MOD 412J		

Reason: This frequency band will be used for radio astronomy observations and for conducting passive research in space.

92-95			RADIOLOCATION FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE ADD 412K		

Reason: The frequency band will be used for terrestrial services and transmission of voice, data, television signals by satellites. Also required for Radiolocation.

ADD 412N Radio astronomy observations on the Dinitrogen Hydronium line are being carried out on a number of countries under national arrangements. In making assignments administrations are urged to protect radio astronomy observations in the band 93.12 to 93.22 GHz from harmful interference.

GHz

Region 1	Region 2	Region 3
95 - ~~100~~ 100	Radiolocation AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION-SATELLITE ADD 412II	
100 - 101	SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) AERONAUTICAL MOBILE AERONAUTICAL RADIONAVIGATION MARITIME MOBILE MARITIME RADIONAVIGATION AERONAUTICAL MOBILE SATELLITE AERONAUTICAL RADIONAVIGATION SATELLITE MARITIME MOBILE SATELLITE MARITIME RADIONAVIGATION SATELLITE Radiolocation	

REASON: This frequency band will be used for ship and aircraft communications, position determination and air traffic control.

101 - 102	EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) MOD 412J	

REASON: This frequency band will be used for conducting passive research in space.

102 - 105	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE	

REASON: This frequency band will be used for terrestrial services and for transmission of voice, data, television signals by satellite.

105 - ~~139~~ 116	EARTH EXPLORATION-SATELLITE (Passive) ~~EARTH EXPLORATION~~ RADIO ASTRONOMY SPACE RESEARCH (Passive) MOD 412I ~~412K~~	

REASON: This frequency band will be used for radio astronomy observations of the carbon monoxide lines and for conducting passive research in space.

GHz		
Region 1	Region 2	Region 3
116 - 126	SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) INTER-SATELLITE FIXED MOBILE ~~412K~~ 410F	
126 - 130	INTER-SATELLITE FIXED MOBILE ~~412K~~	

REASON: This frequency band will be used for communications between satellites and for terrestrial radio relay service.

SUP 412K

REASON: Consequential to reallocation.

ADD 410F The frequency 120 GHz is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ± 500 MHz of that frequency. Radiocommunication services operating within these limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

REASON: New applications; heating of small fibers and pellets; insect control; host of specific biological applications based on recent evidence of frequency specific effects.

130 - 140	INTER-SATELLITE FIXED MOBILE ~~RADIO-ASTRONOMY~~ ~~SPACE RESEARCH (passive)~~ ~~412J~~		

REASON: This frequency band will be used for communications between satellites and for terrestrial services.

140 - 142	FIXED-SATELLITE (~~Earth-to-Space~~) (Space-to-Earth) FIXED MOBILE ADD 412M		

REASON: This frequency band will be used for terrestrial services and for transmission of voice, data and television signals by satellite.

GHz		
Region 1	Region 2	Region 3
142 - 150	Radiolocation AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE MARITIME MOBILE-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION-SATELLITE ADD 412G ADD 412M ADD 412H		

REASON: This frequency band will be used for ship, aircraft communications, position determination and for air traffic control.

ADD 412G Radio astronomy observations on the deuterated cyanide line are being carried out in a number of countries under national arrangements. In making assignments to stations in the mobile services, administrations are urged to protect radio astronomy observations from harmful interference in the 144.68-144.98 GHz band.

150 - 151	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) ADD 412M		

REASON: This frequency will be used for terrestrial and space services.

151 - 152	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE ADD 412M		

REASON: This frequency band will be used for terrestrial services and for communication of voice, date, television signals by satellites.

GHz

Region 1	Region 2	Region 3
152 - 164	FIXED MOBILE FIXED-SATELLITE (Space-to-Earth)	
164 - 165	FIXED MOBILE FIXED-SATELLITE (Space-to-Earth) SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive)	

REASON: These frequency bands will be used for terrestrial and space services.

165 - 168	RADIOLOCATION Amateur Amateur-Satellite SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive)	

REASON: This frequency band is proposed to be used for Radiolocation, Amateur and space services.

168 - 170	RADIOLOCATION Amateur Amateur-Satellite	

REASON: This frequency band will be used for determining position of objects and for amateurs to promote national and international exchange of thoughts and ideas.

GHz

Region 1	* *	Region 2	* *	Region 3
170-182 174.5		FIXED MOBILE except aeronautical mobile INTER-SATELLITE		

Reason: This frequency band will be used for terrestrial services.

174.5 - 176.5	INTERSATELLITE EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) FIXED MOBILE (except Aeronautical Mobile) ADD 412P	

Reason: This band required for both terrestrial and space services as shown.

ADD 412P Radio astronomy observations on the ethynyl radical line, hydrogen cyanide line, formyl ion line, hydrogen isocyanide line, and dinitrogen hydronium line are being carried out in a number of countries under national arrangements. In making assignments, administrations are urged to protect radio astronomy observations from harmful interference in the 174.42-175.02, 177-177.4, 178.2-178.6, 181-181.4, and 196.2-186.6 GHz bands.

176.5 - 182	FIXED MOBILE except aeronautical mobile INTER-SATELLITE ADD 412P	

Reason: This frequency band will be used for terrestrial services and for communications between satellites.

GHz

Region 1	* *	Region 2	* *	Region 3
182 - 185		EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) RADIO ASTRONOMY MOD 412J		

Reason: This frequency band will be used for radio astronomy observations of water vapor line and for conducting passive research in space.

185- 190		FIXED INTER-SATELLITE MOBILE ADD 412P		

Reason: This frequency band will be used for terrestrial services and for communications between satellites.

GHz

Region 1	Region 2	Region 3
190 - 200 195	AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE ~~MARITIME MOBILE-SATELLITE~~ AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION-SATELLITE ~~MARITIME RADIONAVIGATION-SATELLITE~~	

REASON: This frequency band will be used for aircraft communications and position determination and for air traffic control.

195-200	AERONAUTICAL MOBILE-SATELLITE MARITIME MOBILE-SATELLITE AERONAUTICAL-RADIONAVIGATION-SATELLITE MARITIME RADIONAVIGATION-SATELLITE MARITIME MOBILE MARITIME RADIONAVIGATION		

Reason: This frequency band will be used for ship communications and position determination and for air traffic control.

200- 220 201.5	FIXED MOBILE SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive)		

REASON: This frequency will be used for terrestrial and space services.

GHz

Region 1	* *	Region 2	* *	Region 3
201.5-217		FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE		
217-220		FIXED MOBILE (except aeronautical mobile) RADIO ASTRONOMY		
Reason: This frequency band will be used for terrestrial services and for radio astronomy observations.				
220-230 221		FIXED-SATELLITE FIXED MOBILE (except aeronautical mobile) RADIO ASTRONOMY		
Reason: This frequency band will be used for communications of voice, data and television signals by satellite and for terrestrial systems and for radio astronomy observations.				

GHz

Region 1	Region 2	Region 3
221 - 225	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE Radiolocation	
225 - 227	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive) Radiolocation	
227 - 229	FIXED-SATELLITE (Space-to-Earth) FIXED MOBILE Radiolocation	
REASON: This frequency band will be used for communications of voice, data and television signals by satellite and for terrestrial systems.		
229 - 230	FIXED-SATELLITE FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (Passive) EARTH EXPLORATION SATELLITE (Passive)	
REASON: This frequency band will be used for communications of voice, data, and television signals by satellite, for terrestrial systems and for radio astronomy observations.		

GHz		
Region 1	Region 2	Region 3
230 - 240	EARTH EXPLORATION SATELLITE (Passive) RADIO ASTRONOMY SPACE RESEARCH (Passive) MOD 412J	

REASON: This frequency band will be used for radio astronomy observations and for conducting passive research in space.

240 - 250	RADIOLOCATION FIXED MOBILE Amateur Amateur-Satellite ADD 410G

GHz		
Region 1	Region 2	Region 3

REASON: This frequency will be used to determine the location of objects and for the amateur service to promote national and international exchange of thoughts and ideas.

ADD 410G The frequency 248 GHz is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ± 500 MHz of that frequency. Radiocommunication services operating within these limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

REASON: New applications; heating of small fibers and pellets; insect control; host of specific biological applications based on recent evidence of frequency specific effects.

250 - 252	EARTH EXPLORATION SATELLITE (Passive) SPACE RESEARCH (Passive) AERONAUTICAL MOBILE AERONAUTICAL MOBILE - SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION - SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION - SATELLITE MARITIME MOBILE MARITIME MOBILE - SATELLITE
252 - 265	AERONAUTICAL MOBILE AERONAUTICAL MOBILE - SATELLITE MARITIME MOBILE MARITIME MOBILE - SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL RADIONAVIGATION - SATELLITE MARITIME RADIONAVIGATION MARITIME RADIONAVIGATION - SATELLITE ADD 412Q

REASON: This frequency band will be used by ships and aircraft for communications, and for position determination and for air traffic control.

GHz

Region 1	Region 2	Region 3
ADD 412Q Radio astronomy observations on the C_2H, HCN, HCO^+, HNC, and N_2H^+ lines are being carried out in a number of countries under various arrangements. In making assignments, administrations are urged to protect radio astronomy observations from harmful interference, particularly from airborne or spaceborne transmitters, in the frequencies 262.5 GHz, 265.9 GHz, 267.6 GHz, 272.0 GHz, and 279.5 GHz.		
265 - 275	FIXED-SATELLITE (Earth-to-Space) FIXED MOBILE ADD 412Q	
REASON: This frequency band will be used by the terrestrial services and for communications of voice, data and television signals by satellites.		
275 - 277	FIXED MOBILE SPACE RESEARCH (Passive) EARTH EXPLORATION-SATELLITE (Passive)	
277 - 300	FIXED MOBILE ADD 412Q	
Above 300 GHz not allocated.		

APPENDIX 3.—PROPOSAL FOR INTERNATIONAL RADIO REGULATIONS AND APPENDICES (OTHER THAN ARTICLE 5)

Article 3

GENERAL RULES FOR THE ASSIGNMENT AND USE OF FREQUENCIES

NOC
NOC 113
NOC 114
NOC 115
MOD 116

§4. The frequency assigned to a station of a given service shall be separated from the limits of the band allocated to this service in such a way that, taking account of the frequency band assigned to a station, no harmful interference is caused to services to which frequency bands immediately adjoining are allocated. *If a service allocated to an immediately adjoining frequency band is reportedly subject to harmful interference caused by a station whose occupied bandwidth is not wholly contained within the band allocated to the service rendered by that station, it shall be regarded as not complying with this provision.*

Article 6

NOC
SPECIAL RULES FOR THE ASSIGNMENT AND USE OF FREQUENCIES

(MOD) 413
Members [and Associate Members] of the Union . . .

NOC 414
NOC 415
NOC 416
NOC 417 through 421

Article 7

SPECIAL RULES RELATING TO PARTICULAR SERVICES

NOC 422
Reason: Necessary and adequate as drafted.

MOD 423
[In principle, except in the frequency band 3900–4000 kHz] Broadcasting stations using frequencies below [5060] *4063* kHz or above *26,100 kHz* [41 MHz] shall not employ power exceeding that necessary to maintain economically an effective national service of good quality within the frontiers of the country concerned.

NOC 424 through 428
NOC 428A
ADD

Section IB. Broadcast Service in Band 7

ADD *428B*
To enhance sharing possibilities and to improve receiving conditions, broadcasting stations operating in Band 7, while complying with the provisions of No. 694, shall in no event employ an effective radiated power on any azimuth in excess of +73 dBW for A3, +70 dBW for A3H, or +64 dBW for A3A or A3J emission.

ADD *428C*
Notwithstanding the provisions of ADD 428B, broadcasting stations operating in Band 7 and notified as serving a target area partially or wholly inside the country containing the station shall in no event employ an effective radiated power in excess of 47 dBW for A3 emission, +44 dBW for A3H, or +38 dBW for A3A or A3J emission.

ADD *428D*
Broadcasting stations operating in Band 7 and serving an area as defined in ADD 428C shall not operate on a frequency above 7500 kHz.

ADD *428E*
Stations broadcasting in Band 7 shall begin to take the necessary steps to complete conversion to compatible single sideband by xx. (xx date to be subsequently determined)

ADD *428F*
Noting the provisions of No. 130 of the Convention, no Administration shall employ more than one frequency per frequency band to provide the same modulated signal simultaneously to any zone or contiguous zones.

ADD *428G*
Notwithstanding the provisions of footnote 1 to Appendix 4, no transmitter operating in the broadcasting service in Band 7 shall supply to the transmission line a mean power of any spurious emission in excess of −30 dBW.

ADD *428H*
No station shall be operated so as to cause harmful interference to another station 10 kilohertz removed.

429 through 432: Under consideration in preparation for 1978 Aero WARC.
NOC 437A, 438
NOC 439, 440
MOD 443

* * * * *

−3 kHz when two adjacent frequencies are used for single sideband radiotelephony;
−4.5 kHz when one frequency is used for single sideband radiotelephony and the adjacent frequency is used for radio telegraphy.

The use of double sideband radiotelephony in all Regions is discouraged and is to be discontinued as soon as possible and, in any event, not later than the date prescribed by these Regulations.

SUP 444
Reason: Will be overtaken by single sideband implementation.
NOC 445, 445A, 456, 457, 457A
NOC 458
NOC 463, 464
MOD 465
Administrations are urged to discontinue, in the fixed service, the use of double sideband radiotelephone transmissions. [In the bands below 30 MHz, if possible as from January 1, 1970.]
NOC 466, 467
MOD 468
To obtain economy in the use of frequencies, the International Frequency Registration Board [should] *may* be consulted by the administrations concerned whenever such agreements are under discussion on a regional or world-wide basis.
NOC 469
MOD 470
To obtain economy in the use of frequencies, the International Frequency Registration Board [should] *may* be be consulted by the administrations concerned whenever such agreements are under discussion on a regional or world-wide basis.

Reason: For consistency and to aid administrations in reaching their desired goal in their own competent, multilaterally agreed manner noting No. 128 of the Convention.
NOC 470A, 470AA, 470AB
MOD 470AC
[In the frequency bands above 15 GHz there shall be no restriction as to the direction of maximum radiation for stations in the fixed or mobile service.] *As far as practicable, sites for transmitting[3] stations, in the fixed or mobile service, employing maximum values of equivalent isotropically radiated power exceeding +45 dBW in the frequency bands between 15 and 40 GHz, should be selected so that the direction of maximum radiation of any antenna will be at least* ° away from the geostationary satellite orbit, taking into account the effect of atmospheric refraction.[4]*

Reason: To provide for compatibility in the bands between 15 and 40 GHz which are now more heavily populated with that population growing.

*Note: Comments as to the value which would be inserted are requested.
NOC 470B, 470BA, 470C, 470CA
MOD 470DB, Spa 2
(5) The limits given in Nos. 470B and 470CA apply in the following frequency bands allocated to the fixed-satellite service for reception by space stations, where these bands are shared with equal rights with the fixed or mobile service:

27.5– 29.5 GHz		
29.5– 31.0 GHz	(for the country mentioned in No. 409E)	
50 – 51.4 GHz		
76 – 84 GHz		
92 – 95 GHz		
201.5–217 GHz		
265 –275 GHz		

NOC 470E
MOD 470J
(3A) The limits given in No. 470G apply in the following frequency bands allocated to transmission by earth stations in the fixed-satellite service and earth exploration-satellite service, and in particular the meteorological-satellite service, where these bands are shared with equal rights with the fixed or mobile service:

2 655– 2 690 MHz	(Regions 2 and 3)
4 400– 4 700 MHz	
5 800– 5 850 MHz	(for the countries mentioned in No. 390)
[5 850– 5 925 MHz	(Regions 1 and 3)]
5 925– 6 425 MHz	
6 425– 6 925 MHz	
7 900– 7 975 MHz	
7 975– 8 025 MHz	(for the countries mentioned in No. 392H)
8 025– 8 400 MHz	
[10.95 –11.20 GHz	(Region 1)]
12.50 –12.75 GHz	(Regions 2 and 3 and for the countries mentioned in No. 405BD)

12.75 –13.25 GHz
14.175–14.300 GHz (for the countries mentioned in No. 407)
14.4 –14.5 GHz
(3B) The limits given in No. 470GA apply in the following frequency band allocated to transmission by earth stations in the fixed-satellite service, where this is shared with equal rights with the fixed or mobile service:
27.5– 29.5 GHz
80 – 84 GHz
92 – 95 GHz
201.5–217 GHz
265 –275 GHz

NOC 470K, 470V, 470VA

Article 8

GENERAL PROVISIONS

NOC 471 through 481
MOD 482
j) the technical planning for radio conferences with a view to reducing their duration *without diminishing their effectiveness;* and
NOC 483, 484
NOC 485

Reason: Simplification, and to state explicitly the implicit intent of the present provisions.

Article 10

SECTION II. PRELIMINARY EXAMINATION AND PREPARATION OF TENTATIVE HIGH FREQUENCY BROADCASTING SCHEDULE

ADD *645A*
Before the Board shall begin the work outlined in No. 646, it shall examine each notice received with respect to its conformity with the Convention, the Table of Frequency Allocations and the other provisions of the Radio Regulations including Nos. ADD 428B through ADD 428F. Further, it shall examine the Supplementary Information portion of each notice to determine whether the notifying administration has affirmed that the subject station does, in fact, comply with the provisions of No. 428G. If the Board's finding in respect to the examination of the notice to this point is in all respects entirely satisfactory, the Board shall proceed to No. 646. Otherwise, No. 645B shall apply.

ADD *645B*
If the Board's finding is unfavorable with respect to Article 7, the notice shall be returned by airmail to the notifying administration drawing attention to the Regulation or Regulations with respect to which the finding was unfavorable. If the notice is resubmitted without being sufficiently changed to enable a favorable finding in respect to Article 7, or if the notice is resubmitted with changes sufficient to enable a favorable finding in respect to Article 7 based upon the strength of the notice alone but in formation provided to the Board by another administration gives reason to believe the resubmitted notice may be in error, the notice shall again be returned to the notifying administration together with a reference to this Radio Regulation. A suitable entry shall be made in the Tentative High Frequency Broadcasting Schedule.

ADD *645C*
If any resubmitted notice receives a satisfactory finding in respect to ADD 645A and the Board does not have in its possession such information as may in the view of the administration supplying that information give cause to believe that the resubmitted notice may be in error, the Board shall proceed to No. 646.

ADD *645D*
During the period between the coming into force of the Final Acts of this conference and November, 1989, the Board shall in every case ascertain whether only single sideband emission has been notified and, if so, shall enter a suitable remark in Column B of the Tentative High Frequency Broadcasting Schedule and in Column 13C of the Master International Frequency Register. Where apparent or actual incompatibilities arise between stations using single sideband emission and other stations broadcasting in Band 7, the former shall not be required to accommodate the latter.

NOC

Article 11

NOC

INTERNAL REGULATIONS OF THE INTERNATIONAL FREQUENCY BOARD

Article 12

TECHNICAL CHARACTERISTICS OF EQUIPMENT AND EMISSIONS

NOC 667 through 675
NOC 676
NOC 677

Article 13

INTERNATIONAL MONITORING

NOC 678 through 681
MOD 682
§ 5. Administrations agree that monitoring requests from international organizations not participating in the the international monitoring system [should] *may* be co-ordinated by the Board and, if appropriate, forwarded by it to administrations.
NOC 683
MOD 684
§ 7. The technical standards recommended by the C.C.I.R. to be observed by monitoring stations shall be recognized by the Board as the optimum practicable technical standards for monitoring stations participating in the international monitoring system. [However, to meet some needs for monitoring data, stations observing lower technical standards may participate in the international monitoring system at the discretion of their administrations.]
NOC 685
SUP 688
MOD 689
§ 11. [To ensure that published monitoring data are current and world wide in nature,] administrations [having jurisdiction over monitoring stations listed in the List of International Monitoring Stations (see Article 20)] shall make every effort [, as practicable,] to arrange for monitoring observations to be [made by such stations and] submitted to the Board as soon as possible [after the date of observation.]
SUP 691
NOC 692

Article 14

INTERFERENCE AND TESTS

NOC 694 through 703

*Article 15**

NOC

PROCEDURE IN A CASE OF HARMFUL INTERFERENCE

(MOD) 704
It is essential that Members [and Associate Members] exercise * * *

Reason: To reflect the action of the 1973 Plenipotentiary Conference.

NOC 705 through 711A
Reason: Adequate and necessary as drafted.

MOD 711B
When cases of harmful interference occur as a result of emissions from space stations, the administrations concerned shall, upon request from the administration having jurisdiction over the station experiencing the interference, furnish current ephemeral data necessary to allow [calculation] *determination* of the positions of the space station *when not otherwise known.*

Reason: To generalize to preclude the need for calculations where not needed otherwise.

ADD *711C*
Notwithstanding any other provision of the Radio Regulations, should station(s) providing a safety service experience harmful interference irrespective of the source, that source shall immediately upon notification to the controlling administration, cease operation pending resolution of the difficulty.

NOC 712 through 717
Reason: Adequate and necessary as drafted.

MOD 718
However, the Board shall not be required to deal with problems of harmful interference between stations operating in [the same band and in conformity with the Table of Frequency Allocations when at least one of these stations is in a class the frequency of which is not required to be notified according to Nos. 486 or 487 of these Regulations; or between stations in] the band [535] *525* [1605] *1800* kHz in Region 2. Such cases of interference shall be resolved by appropriate bilateral or multilateral arrangements in which administrations should particularly observe the provisions of No. 704.

Reason: To add to the Board's effectiveness in resolving cases of harmful interference.

Article 16

NOC

REPORTS OF INFRINGEMENTS

NOC 719 through 720
Reason: Adequate and necessary as drafted.

MOD 721
If an administration has information of an infringement of the Convention or Radio Regulations, committed by a station over which it [has authorized] *may exercise authority,* it shall ascertain * * *

Reason: To permit action against possibly unauthorized stations committing infringements.

Article 17

SECRECY

MOD 722
Noting the provisions of Article 22 of the Convention, [The] the administrations bind themselves * * *.

NOC 723, 724

Article 18

LICENCES

NOC 725 through 727

MOD 728

The holder of a licence is required to preserve the secrecy of telecommunication, as provided in Article 22 of the Convention. Moreover, the [license] *licencing authority* shall provide specifically or by reference, * * *

Reason: To provide for those administrations who may not issue written licences.

NOC 729, 730

MOD 731

(2) For land mobile stations, *including stations comprised of only a receiver or receivers*, a clause shall be * * *.

Reason: To explicitly characterize a station noting No. 21 of these Regulations.

NOC 732 through 734.

Article 19

NOC

IDENTIFICATION OF STATIONS

MOD 735

Transmissions [without identification or with false identification are prohibited.'] *and transmitting stations shall be uniquely identified.' Administrations shall make every effort at the earliest possible time to introduce and use automatic identification. On frequencies assigned for international use, means recommended by C.C.I.R. shall be utilized.*

NOC 735.1

SUP 736, 737A

Reason: To provide universal, unique and automated identification.

NOC 738

SUP 739 through 741

Reason: Consequential to above proposals.

SUP 742

Reason: Unnecessary to incorporate Convention provisions in the Radio Regulations.

NOC

Section II. Allocation of International Series, and Assignment of Call Signs

MOD 743

[All stations open to the international public correspondence service, all amateur stations, and other stations which are capable of causing harmful interference beyond the boundaries of the country to which they belong, shall have call signs from international series allocated to each country as given in the Table of Allocation of Call Sign Series in No. 747.] *Each station whose signal could propagate internationally shall uniquely identify itself such as by a call sign formed pursuant to No. 747. Identification shall preferably be by automated means using the applicable Recommendations of the CCIR. (See Resolution G–C.)*

Reason: Consequential to above proposals.

NOC 744 through 748

Reason: Necessary and adequate as drafted.

MOD 749

Between administrative radio conferences, the Secretary General is authorized to [deal with questions relating to changes in the allocation of] *supply previously unassigned* series of call signs, on a provisional basis, * * *

Reason: For clarification.

NOC 749A through 755, 755.1, 756 through 763

Reason: Necessary and adequate as drafted.

MOD 764

However, it is recommended that, as far as possible,

a) the call signs of coast and aeronautical stations consist of:

—three letters

or

—three letters followed by [one or two] *not more than three* digits * * *

Reason: To accord with existing practice.

NOC 765 through 770

Reason: Necessary and adequate as drafted.

MOD 771

However, land mobile stations employing radiotelephony may also use a call sign consisting of:

—two, [or] three *or four* letters followed by four digits (other than the digits 0 or 1 in cases where they immediately follow a letter).

NOC 772, 773

Reason: Necessary and adequate as drafted.

MOD 773A

* * * follow a letter). [(See also No. 737A.)]

Reason: Consequential to other proposals.

NOC 774 through 781

Reason: Necessary and adequate as drafted.

NOC 782

NOC 783, 783A

Reason: Necessary and adequate as drafted.

SUP

[Formation of ship station selective call numbers and coast station identification numbers]

Reason: Superfluous.

NOC 783B through 783G

Reason: Necessary and adequate as defined.

SUP

[Assignment of ship station selective call numbers and coast station identification numbers]

Reason: Superfluous.

MOD 783H

In cases where selective call numbers for ship stations and identification numbers for coast stations are required for use in the maritime mobile service and the selective calling system is in accordance with Appendix 20C, [as an interim procedure,] the selective call numbers and identification numbers shall be supplied by the Secretary-General on request. Upon notification by an administration of the introduction of selective calling for use in the maritime mobile service:

—selective call numbers for ships will be supplied as required in blocks of 100 (one hundred);

—coast station identification numbers will be supplied in blocks of 10 (ten) to meet actual requirements;

—selective call numbers for selective calling of predetermined groups of ship stations in accordance with No. 783G will be supplied as required as single numbers.

[The final procedure shall be determined at a future competent World Administrative Radio Conference.]

Reason: To establish a satisfactory, interim procedure in ongoing form.

NOC 783I through 788

Reason: Necessary and adequate as drafted.

Article 20

SERVICE DOCUMENTS

MOD 789

The following documents shall be published by the Secretary General *This information shall be available for computer access, and, in response to individual requests, the requested information shall be available in computer printed form.*

Reason: For increased use of the information, long-term cost reduction, and to preclude interpretation that service documents shall be produced only in hard copy form.

NOC 790 through 812

Reason: Adequate as drafted.

SUP 813

Reason: Unnecessary, expensive item of limited usefulness.

NOC 814 through 829A

Reasons Acceptable as drafted.

SUP 830

Reason: Item of limited usefulness, difficult for at least some administrations to supply the sought data, and other data, such as sales of equipment, are potentially more useful for administrations' purposes.

NOC 831 through 837

Reason: Acceptable as drafted.

APPENDIX 3A

NOTE: Many of the matters treated in the balance of this Appendix presently fall beyond the scope of the draft agenda established pursuant to the 31st Session of the Administrative Council.

Article 21

MOD

INSPECTION OF [MOBILE] STATIONS [AND MOBILE EARTH STATIONS IN THE MARITIME MOBILE SATELLITE SERVICE]

MOD 838

The governments or appropriate administrations of countries which a mobile station or a mobile earth station [in the maritime mobile satellite service] visits, may require the production of the [license] *authorization* for examination. The operator of the station, or the person responsible for the station, shall facilitate this examination. The [licence] *authorization* shall be kept in such a way that it can be produced upon request. As far as possible, the [licence] *authorization*, or a copy certified by the authority which has issued it, should be permanently exhibited in the station.

Reason: To generalize the applicability, and to accommodate such situations as where a written license may not be issued.

MOD 839

The inspectors shall [have in their possession] *possess* an identity card or badge, issued by the competent authority, which [they] shall be shown on request of the master or person responsible for the ship, aircraft or other vehicle carrying the mobile station or the mobile earth station. [in the martime mobile satellite service.]

Reason: To generalize and simplify.

MOD 840

When the [licence] *authorization* cannot be produced or when [manifest] irregularities * * *

Reason: As above, and to prevent confusion.

NOC 841

Reason: Necessary and adequate as drafted.

MOD 842

* * * the mobile station or mobile earth station [in the maritime mobile satellite service] is subject * * *

Reason: To generalize.

* * * or other vehicle carrying the mobile station or mobile earth station [in the maritime mobile satellite service]. If any breach * * *

Reason: To generalize.

MOD 844
The Members of the Union [undertake not to] *shall not* impose upon foreign mobile stations or upon foreign mobile earth stations [in the maritime mobile satellite service] which are temporarily within their territorial waters or make a temporary stay in their territory, technical and operating conditions more severe than those contemplated in these Regulations. This [undertaking] *provision* in no way affects arrangements which are made under international agreements relating to [maritime or air navigation,] *mobile or mobile earth stations*, and which are therefore not covered by these Regulations.
Reason: To generalize and to tighten the constraint upon Members not to exceed these Regulations.
NOC

Chapter VI

MOD
Personnel of Stations [in the Mobile Service and the Maritime Mobile Satellite Service]
NOC

Article 22

MOD
Authority of the [Master] *Captain*
MOD 845
The service of a mobile station is placed under the supreme authority of the [master] *captain* or of the person responsible * * *
Reason: To generalize and to reflect the applicability of these provisions to all mobile stations.
NOC 846
MOD 847
The [master] *captain* * * *
Reason: As above.
MOD 847A
The authority and obligations imposed by Nos. 845, 846 and 847 shall also apply to personnel of mobile earth stations in the [maritime] mobile-satellite service.
Reason: To generalize.

Article 23

NOC
OPERATORS' CERTIFICATES FOR SHIP AND AIRCRAFT STATIONS AND MOBILE EARTH STATIONS IN THE MARITIME MOBILE SATELLITE SERVICE
NOC

Section I. General Provisions
NOC 848, 849, 849A, 850, 850.1, 851
Reason: Necessary and adequate as drafted.
MOD 852
The provisions of No. 851 shall not [, however,] apply to any ship or aircraft station working on frequencies assigned for international use. *and which operate on ships or aircraft engaged in international voyages or flights. Further, administrations may, by bilateral agreements, apply No. 851 to stations on ships or aircrafts engaged in voyages or flights solely between the countries involved.*
Reason: To afford each administration the latitude needed.
MOD 853
In the case of complete unavailability of the operator in the course of a sea passage, a flight or a journey, and solely as a temporary measure, the [master] *captain* or the person responsible for the station may authorize an operator holding a certificate issued by the government of another Member of Union to perform the radiocommunication service.
Reason: To reflect the general applicability of this provision to all mobile stations.
NOC 854
(MOD) 855
In all cases, such temporary operators must be replaced as soon as possible by operators holding the certificate prescribed in [§ 1 of] this Article.
Reason: To afford editorial simplification.
MOD 856, 856A
Each administration shall take the necessary steps to prevent, to the maximum extent possible, the fraudulent use of certificates. For this purpose, such certificates shall bear the holder's signature and shall be authenticated by the issuing administration. [Administrations may employ, if they wish, other means of identification such as photographs, fingerprints, etc. However, in the maritime mobile service the] *C*ertificates [issued after 1 January 1978] may bear [the] *a* photograph of the holder, *which the administration shall verify is recent*, and the holder's date of birth.
Reason: To update and simplify these provisions while reducing still further the likelihood of fraudulent usage.

NOC 857
Reason: Adequate and necessary as drafted.

MOD 857A
However, in [the maritime] mobile *and mobile-satellite* services all certificates not in one of the working languages of the Union [and issued after 1 January 1978] shall carry at least the following information in one of these working languages:

—the name and date of birth of the holder,
—the title of the certificate and its date of issue,
—if applicable, the number and period of validity of the certificate,
—the issuing administration.

Reason: To generalize applicability.
NOC 858
Reason: Adequate and necessary as drafted.
NOC

Section II. Classes and Categories of Certificates except for the Operators of Ship Stations

MOD 859
There are two classes of certificates, *a radiocommunication operator's general certificate and a radiotelegraph operator's certificate*[1] [as well as a special certificate, for radiotelegraph operators.[1]]
Reason: For simplification.
MOD 860
There are two categories of radiotelephone operators' certificates, general and, *should an administration desire*, restricted.[1] *There is also a radiocommunication operator's general certificate for the aeronautical and maritime mobile services*
NOC 861, 862
Reason: Adequate as drafted.
MOD 863
The holder of a radiotelephone operator's restricted certificate may carry out the radiotelephone service of any aircraft station, [when working on frequencies of the maritime mobile service,] provided that:

* * * * *

Reason: To generalize.
NOC 864, 865, 866
Reason: Adequate as drafted.
MOD 866A
There are [four] *2* categories of certificates for radiotelegraph operators,[1] namely:

—the radiocommunication operator's general certificate,
[—the first class radiotelegraph operator's certificate,
—the second class radiotelegraph operator's certificate,]
—the radiotelegraph operator's special certificate.

MOD 866B
There are two categories of radiotelephone operator's[1] certificates, general and, *should an administration desire*, restricted.
Reason: Simplification.
MOD 866C
The holder of a radiocommunication operator's general certificate[, or of a first class or second class radiotelegraph operator's certificate,] may carry out the radiotelegraph or radiotelephone service of any ship station.
Reason: Consequential amendment.
NOC 866D
Reason: Adequate as drafted.
(MOD) 866E
* * * transmitter does not exceed [1,5] *1.5* kilowatt.
Reason: To accord with normal English language usage.
NOC 866F through 866I
Reason: Adequate as drafted.
SUP 867
Reason: Redundant. Continuation of this provision does not serve a useful purpose.
NOC 868 through 869
Reason: Necessary and adequate as drafted.
NOC 870
Reason: Adequate as drafted.
MOD 870A
However, [with respect to the maritime mobile service,] administrations should also take whatever steps they consider necessary to ensure the continued proficiency of operators while in service.
Reason: For generality. The provision, as written, was adopted by a specialized maritime conference thus necessitating the restriction of this provision's applicability.
NOC 870B through 870K
Reason: Necessary and adequate as drafted.
SUP through 888
[B. First Class Radiotelegraph Operator's Certificate]
Reason: To reduce the number of classes to the general and special certificates to better future needs.
NOC 889 through 893
Reason: Adequate as drafted.
MOD 893A
* * * ship station operators. [after 1 January 1976.]
Reason: Overtaken by events.
NOC 894 through 898
Reason: Necessary and adequate as drafted.
MOD 899
The restricted radiotelephone operator's certificate [is] *may be* issued to candidates who have given proof of the knowledge and professional qualifications enumerated below:
Reason: To save for administrations the option of whether the restricted certificate is to be issued.
NOC 900
Reason: Necessary and adequate as drafted.
MOD 901
Ability *in at least one working language of the Union* to send correctly and to receive correctly by telephone.
Reason: To facilitate intercommunication by radiotelephony such as where the safety of life or property may be involved.
NOC 902
Reason: Necessary and adequate as drafted.

MOD 903

* * * each administration may itself fix the conditions for obtaining a restricted radiotelephone operator's certificate *if same are issued by that administration*, provided * * *

Reason: To preclude the implication that an administration must issue restricted certificates. See MOD 899.

MOD 904

Administrations [in Region 1 do] *need* not issue certificates under No. MOD 903[.] *depending on national desires.*

Reason: Consequential amendment.

NOC 905, 905A, 906

Reason: Necessary and adequate as drafted.

MOD 907, 907A and 908

* * * general certificate [or a first- or second-class radiotelegraph operator's certificate] * * *

Reason: Consequential amendment.

MOD 909

* * *general certificate [or a first-class radiotelegraph operator's certificate] * * *

Reason: Consequential amendment.

Article 24

CLASS AND MINIMUM NUMBER OF OPERATORS FOR STATIONS ON BOARD SHIPS AND AIRCRAFT

SUP 912

Reason: Superfluous. Other considerations will ensure that administrations will have sufficient personnel on hand to handle public correspondence.

Article 29

GENERAL RADIOTELEGRAPH PROCEDURE IN THE MARITIME MOBILE [AND AERONAUTICAL MOBILE] SERVICE[S]

MOD 1000

§ 1. (1) In the maritime mobile [and aeronautical mobile] service[s] the procedure detailed in this Article is obligatory, except in cases of distress, urgency or safety, to which the provisions of Article 36 are applicable.

SUP 1001

SUP 1002

MOD 1003

§ 2. The use of the Morse code signals specified in the Telegraph Regulations*) shall be obligatory in the maritime [and aeronautical] mobile service[s]. However, for radiocommunications of a special character, the use of other signals is not precluded.

SUP 1004

MOD 1005 Mar

(2) In the maritime mobile service, [only] the service abbreviations given in Appendix 13A are to be used.

NOC 1007

NOC 1008

NOC 1010

NOC 1011

MOD 1009

a) The mobile station whose emission causes interference to the correspondence of a mobile station with a coast [or aeronautical] station, shall cease sending at the first request of the coast [or aeronautical] station.

MOD 1012

§ 6. (1) The *Morse* call consists of:

—The call sign of the station called, not more than three times;

—the word DE;

—the call sign of the calling station, not more than three times.

SUP 1013

SUP 1013A

SUP 1013AA

SUP 1013AB

NOC 1013B Mar2

NOC 1013C Mar2

NOC 1014

SUP 1015

MOD 1015A Mar2

(3) [However,] when using direct-printing telegraphy or similar systems in any of the frequency bands allocated to the maritime mobile service, the call may, by prior arrangement, be made on a working frequency available for such systems.

SUP 1016 Mar2

MOD 1016A Mar2

(1A) [In the maritime mobile service,] the call, as described in No. 1013B Mar 2, shall contain the service abbreviation indicating the working frequency and, if useful, the class of emission which the calling station proposes to use for the transmission of its traffic.

SUP 1017

SUP 1018

SUP 1019

SUP 1019A

SUP 1020

MOD 1020A Mar2

(1A) [In the maritime mobile service] the calling station shall transmit the service abbreviation after the above-mentioned preparatory signals to indicate a priority message other than a distress, urgency or safety message (see No. 1496A) and to indicate the reason for the call.

NOC 1021

SUP 1022

MOD 1022A Mar2

§ 10A. [In the maritime mobile service] the reply to calls consists of:

—the call sign of the calling station, not more than twice;

—the word DE;

—the call sign of the station called, once only.

SUP 1023 through 1040

SUP 1041

SUP 1042

NOC 1043

NOC 1044

NOC 1045

NOC 1047

MOD 1046

§ 16. (1) As a general rule, radiotelegraphs of all kinds transmitted by ship stations [and radiotelegrams in the public correspondence service transmitted by aircraft stations,] shall be numbered in a daily series; number 1 shall be given to the first radiotelegram sent each day to each separate station.

MOD 1048

§ 17. (1) [In cases where both stations are able to change from sending to receiving without manual switching, the transmitting station may continue to send until completion of the message or until the receiving station breaks in on the transmission with the service abbreviation BK. Before commencing, both stations normally agree on such a method of working by means of the abbreviations QSK.] *Unless operations are agreed to by means of the abbreviations QSK and BK, long radiograms shall be transmitted in sections. Each section shall contain no more than 50 words in the case of plain language and no more than 20 words or otherwise.*

SUP 1049

NOC 1050

SUP 1051

NOC 1052

NOC 1053

NOC 1054

MOD 1055

(2) The acknowledgment of receipt shall be transmitted by the receiving station on the traffic frequency [(see Nos. 1041 and 1042)].

NOC 1056

MOD 1057

(2) The signal . . . — . — (end of work) shall also be used[:]

[X] when the transmission of radiotelegrams of general information, meteorological information and general safety notices is finished, [and]

[X] When transmission is ended in long distance radiocommunication services with deferred acknowledgment of receipt or without acknowledgment of receipt.]

SUP 1058

NOC 1059

NOC 1060

MOD 1061

§ 25. When it is necessary for a mobile station to send signals for testing or adjustment which are liable to interfere with the working of [neighbouring coast or aeronautical] *another* station[s], the consent of [these] *this* station[s] shall be obtained before such signals are sent.

NOC 1062

NOC 1062AA

NOC 1062AB

NOC 1062AC

NOC 1062AD

NOC 1062AE

NOC 1062AF

NOC 1062AG

NOC 1062AH

NOC 1062AI through 1062BH

Article 30

CALLS BY RADIOTELEGRAPHY

NOC 1063 through 1067A

MOD 1068

(2) Continuous or frequently repeated emissions of its call sign or the enquiry signal CQ by coast station [should] *shall* be avoided (see No. 693). *In particular CQ shall not be used for more than 5 consecutive minutes in any half hour.*

NOC 1068A through 1087

Article 31

RADIOTELEGRAPHIC CALL TO SEVERAL STATIONS

NOC 1087A through 1094

Article 32

USE OF FREQUENCIES FOR RADIOTELEGRAPHY IN THE MARITIME MOBILE AND AERONAUTICAL MOBILE SERVICES

NOC 1094A through 1107

MOD 1108

(2) However, ship and aircraft stations which cannot transmit on 500 kHz [should] *may* use any other available frequency on which attention might be attracted.

NOC 1109 through 1149, 1159 through 1164, 1165 through 1972, 1176A, 1176B, 1177, 1177.1, 1177A.

MOD 1177B

§ 30B. If it is not intended to maintain watch on all the receiving channels within a group, the administration concerned, in order to ensure an even distribution of calls, shall determine the channel or channels on which watch will be maintained but only after coordination [as far as possible] has been undertaken with administrations sharing the same group (see Resolution No. Mar 2-5).

NOC 1177C, 1177D

SUP 1177E

NOC 1178 through 1179, 1189 through 1191, 1191B, 1191C, 1191DA, 1200, 1200A, 1203, 1204, 1204A
SUP 1207, 1208

Article 35

USE OF FREQUENCIES FOR RADIOTELEPHONY IN THE MARITIME MOBILE SERVICE

SUP 1319
MOD 1320

(2) Aircraft stations may enter into *radio* telephone communication with stations of the maritime mobile service on frequencies allocated to that service for radiotelephony. They shall comply with the provisions of this Article and Article 27.

NOC 1321 through 1322AB
NOC 1322C
NOC 1322D
NOC 1323A
NOC 1324 through 1336
NOC 1338 through 1340
NOC 1343 through 1351
NOC 1351B
NOC 1351E
NOC 1351F
NOC 1351G
NOC 1351H
NOC 1352AA
NOC 1353B
NOC 1354
NOC 1354A
MOD 1354B

(2) These stations [should] *shall* maintain this watch by means of an operator using some aural method, such as headphones, split headphone or loudspeaker.

MOD 1355

§ 17. (1) For the conduct of duplex telephony, the transmitting frequencies of the coast stations and of the corresponding ship stations shall be associated in pairs, as indicated in Appendix 17 and Appendix 17 Rev., except temporarily *on the coast station frequency in accordance with No. 418* in cases where working conditions prohibit the use of paired frequencies in order to meet operational needs.

Reason: To improve duplex telephony's circumstances.

NOC 1356, 1357, 1359, 1359A, 1359B, 1361, 1362, 1363
MOD 1363A

(6) Before transmitting on the frequency 156.8 MHz, a station in the mobile service should listen on this frequency [for a reasonable period] to make sure that no distress traffic is being sent (see No. 1217).

NOC 1363B
NOC 1363C
MOD 1364

§ 19. (1) A coast station providing an international maritime mobile radiotelephone service in the band 156–174 MHz and which forms an essential part of the coverage of the area for distress purposes [should] *shall* during its working hours in that band, maintain an [efficient] aural watch on 156.8 MHz (see Recommendation No. Mar2–10).

NOC 1365 through 1366
MOD 1367

(4) Ship stations should, where practicable, maintain watch on 156.8 MHz when within the service area of a coast station providing international maritime mobile radiotelephone service in the band 156–174 MHz. Ship stations fitted only with VHF radiotelephone equipment operating in the authorized bands between 156 and 174 MHz, [should] *shall* maintain watch on 156.8 MHz, when at sea.

NOC 1367A, 1367B, 1368, 1368A
MOD 1369

§ 21. (1) [Where practicable], coast stations open to the international public correspondence service shall be capable of working with ship stations equipped for duplex or semi-duplex operation.

NOC 1370, 1371, 1371A, 1372
MOD 1373

(2) in the band 156 to 174 MHz administrations shall[, where practicable,] assign frequencies to coast and ship stations in accordance with the Table of Transmitting Frequencies given in Appendix 18 for such international services as administrations consider necessary (see Resolution No. Mar2–14).

NOC 1373A, 1374, 1375
SUP 1376
NOC 1377
MOD

Article 35A

CONDITIONS TO BE OBSERVED BY MOBILE EARTH STATIONS IN THE MARITIME MOBILE-SATELLITE SERVICE

NOC 1379AA

Reason: Necessary and adequate as drafted.

MOD 1379AB

The frequencies of emissions of mobile earth stations shall be checked [as often as practicable] *at least annually* by the inspection service to which these stations are subject.

Reason: To insure at least annual checks.

MOD 1379AC

The energy radiated by receiving apparatus [shall be reduced to the lowest practicable value and] shall not cause harmful interference to other stations.

Reason: The expression "lowest practicable value" is not quantified.

MOD 1379AD

Administrations shall [take all practicable steps necessary to] ensure that the operation of any electrical or electronic apparatus installed in mobile earth stations does not cause harmful interference to the [essential] radio services of stations which are operating in accordance with the provisions of these Regulations.

Reason: To preclude interpretations which might negate the effect this provision as drafted would otherwise have.

Article 36

DISTRESS SIGNAL AND TRAFFIC, ALARM, URGENCY AND SAFETY SIGNALS

NOC 1380 through 1464
MOD 1465

§ 40. (1) The radiotelephone alarm signal consists of two [substantially] sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2 200 Hz and the other a frequency of 1 300 Hz, the duration of each tone being 250 milliseconds.

NOC 1466 through 1476
MOD 1476AA

§ 44AA. (1) The navigational warning signal consists of one [substantially] sinusoidal tone of the frequency 2 200 Hz, interrupted so that the durations of tone and space are 250 milliseconds each.

NOC 1476AB through 1495
SUP

Article 37

RADIOTELEGRAMS, RADIOTELEPHONE CALLS AND RADIOTELEX CALLS

MOD

Article 37A

ORDER OF PRIORITY OF COMMUNICATIONS IN THE [MARITIME] MOBILE SERVICE AND IN THE [MARITIME] MOBILE-SATELLITE SERVICE

NOC 1496A

Article 38

INDICATION OF THE STATION OF ORIGIN OF RADIOTELEGRAMS

NOC 1497 through 1499

Article 39

ROUTING OF RADIOTELEGRAMS

NOC 1500 through 1501
SUP 1502
MOD 1503

§ 3. If the sender of a radiotelegram handed in at a mobile station has indicated the coast or aeronautical station to which he desires his radiotelegram to be sent, the mobile station shall, in order to effect this transmission to the coast or aeronautical station indicated, wait, if necessary, until the conditions specified in Nos. 1500 to [1502] *1501* above are fulfilled.

NOC 1504
NOC

Article 41

AMATEUR STATIONS

Reason: Sufficient as drafted.

MOD

Article 42

EXPERIMENTAL STATIONS

NOC 1568 through 1572

Reason: Adequate as drafted.

MOD 1573

All the general rules of the Convention, and of these Regulations, shall apply to experimental stations. In particular, experimental stations shall comply with the technical conditions imposed upon transmitters operating in the same frequency bands, [except where the technical principles of the experiments prevent this.] *unless an appropriate waiver is secured from the administration concerned.*

Reason: To clarify that the decision as to when departure from otherwise applicable technical conditions rests with the administration concerned as opposed to the operator(s) of the experimental station(s).

NOC 1574, 1575

Reason: Adequate as drafted.

MOD

Article 43

NOC

RADIODETERMINATION SERVICE AND RADIODETERMINATION-SATELLITE SERVICE

MOD 1576

Administrations which have established a radiodetermination service shall take the necessary steps to ensure the effectiveness and regularity of that service [;. however they accept no responsibility for the consequences that might arise from the use of inaccurate information furnished, defective working, or failure of their stations].

Reason: To preclude internal inconsistency and for clarity.

NOC 1577 through 1583

Reason: Adequate as drafted.

SUP 1584

Reason: Superfluous. Radiocommunication by radiotelephony or radiotelegraphy is presumed to be subject to the provisions of these Regulations unless a specific proviso otherwise stipulates.

(MOD) 1584A
"* * * [1584] *1583* * * *"
Reason: Consequential.
NOC 1585 through 1595
Reason: Necessary and adequate as drafted.
MOD

Article 44

NOC

SPECIAL SERVICES

NOC 1596 through 1614
Reason: Necessary and adequate as drafted.
MOD 1615
Messages originating in mobile stations and containing information concerning the presence of cyclones shall be transmitted[, with the least possible delay,] *immediately* to other mobile stations * * *
Reason: Any delay in the transmission of advice in respect to a possibly nearby cyclone may prove catastrophic.
NOC 1616 through 1622
Reason: Necessary and adequate as drafted.
MOD 1623
To facilitate more efficient use of the radio frequency spectrum and to assist other technical and scientific activities, administrations should [endeavour to] provide, on a co-ordinated world-wide basis, a service of standard frequency and time signal transmissions. Attention should be given to the extension of this service to those areas of the world not adequately served.
Reason: To strengthen this provision, noting its purpose together with the fact that it is not proposed that the word "should" be modified.
NOC 1624 through 1628
Reason: Adequate as drafted.

NOC

Appendix 6

Reports of Monitoring Data

Reason: Necessary and adequate as drafted.

NOC

Appendix 7

Report of an Irregularity or of an Infringement on the Convention or the Radio Regulations

Reason: Necessary and adequate as drafted.

NOC

Appendix 8

Report of Harmful Interference

Reason: Necessary and adequate as drafted.

MOD

Appendix 9

Service Documents (See Article 20 MOD)

NOC
List I, List II

Reason: Continued possible need for hard copy version.

SUP
List III A.

Reason: Same information is available from IFL. Electronic facilities would enable selecting IFL-entered data as desired. Finally, List III A is bulky, expensive, little-used and is not sold at a profit to administrations thus forcing other administrations to subsidize this List.

SUP
List III A.

Reason: Same information is available from IFL when updated, from current, applicable Tentative High Frequency Broadcasting Schedule, from High Frequency Broadcasting Schedule for past season in question, or from recapitulative Annual High Frequency Broadcasting Frequency List issued per Radio Regulation No. 655.

NOC
List IV, V, VI, VII.

Reason: Continued possible need for hard copy version.

MOD
List VIII A: It is proposed that this List be among those made available in micro form

Reason: To enhance utilizability.

ADD

Resolution G–C

Relating to Automatic Identification

The General World Administrative Radio Conference, Geneva, 1979, considering

a) the state of the art in respect to identification
b) the need for unique identification
c) the possibility of inadvertent operator error
d) the ever increasing number of active transmitters not only within existing administrations but also noting the ongoing asignments of new call sign and selective calling series
e) the economics of presently available equipment which is directly applicable to automatic identification
f) the possibilities for use of automatic, faster message transmission service in conjunction with automatic identification equipment
g) the increased ease of resolving cases of harmful interference and of ensuring compliance with the provisions of the Convention and the Radio Regulations

resolves
1. that administrations shall implement automatic identification as provided in Article 19 MOD at the earliest possible time, and
2. that automatic means of identification should be adopted by all administrations.

requests the CCIR
to develop and recommend the technical parameters and operational aspects needed, in sufficient time utilizing, as necessary, Interim Working Parties

instructs the Secretary General
to make a special effort to keep all administrations advised on a regular basis of any related development including those having direct application to automatic identification.

APPENDIX 4. PROPOSAL FOR RESOLUTIONS AND RECOMMENDATIONS

Resolutions

Resolution 1—SUP
Reason: This Resolution is no longer applicable
Resolution 2—SUP
Reason: This Resolution has been overtaken by events and is no longer applicable
Resolution 3—SUP
Reason: This Resolution has been overtaken by events and is no longer applicable; see narrative par. 203
Resolution 4—SUP
Reason: By 1979, This Resolution will have been overtaken by events and will no longer be applicable
Resolution 10—
Reason: Reviewed; see narrative par. 204
Resolution 11—SUP
Reason: This Resolution has been overtaken by events and is no longer applicable
Resolution 13—SUP
Reason: should be overtaken by events as result of 1978 AWARC
Resolution 14—SUP
Reason: Replace with ADD Resolution Aer 2–(C) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution 15—
Reason.: Reviewed; no action proposed
Resolution Aer 1—SUP
Reason: Replace with ADD Resolution Aer 2–(D) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution Aer 2—SUP
Reason: Replace with ADD Resolution Aer 2–(E) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution Aer 3—SUP
Reason: Should be overtaken by events as result of 1978 AWARC
Resolution Aer 4—SUP
Reason: Replace with ADD Resolution Aer 2–(F) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution Aer 5—SUP
Reason: Replace with ADD Resolution Aer 2–(G) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution Aer 6—SUP
Reason: Replace with ADD Resolution Aer 2–(H) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Resolution Mar 3—
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 4—SUP
Reason: By 1979, this Resolution will have been overtaken by events and will no longer be applicable
Resolution Mar 5—
Reason: Reviewed; see narrative par. 205
Resolution Mar 6—
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 7—NOC
Reason: This Resolution is still applicable
Resolution Mar 8—
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 9
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 10
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 11—SUP
Reason: This Resolution has been overtaken by events and is no longer applicable
Resolution Mar 12
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 13
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 14
Reason: Abrogated by Resolution Mar 2–1
Resolution Mar 15—SUP
Reason: This Resolution has been overtaken by events and is no longer applicable
Resolution Mar 16
Reason: Abrogated by Resolution Mar 2–1

Resolution Mar 18
Reason: Abrogated by Resolution Mar 2-1
Resolution Spa 2-3—NOC
Reason: This Resolution is still applicable
Resolution Spa 2-5
Reason: Abrogated by Resolution Mar 2-1
Resolution Mar 2-2—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-3—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-4—SUP
will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-5—SUP
Reason: By 1979, the necessary actions should have been completed, and this Resolution should no longer be applicable; see narrative par. 206
Resolution Mar 2-6—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-7—NOC
Reason: Since there will not have been enough experience by 1979 with the type of operation, a future Maritime WARC should complete the actions envisioned by this Resolution
Resolution Mar 2-8—NOC
Reason: Since there will not have been enough experience by 1979 with the type of operation, a future Maritime WARC should complete the actions envisioned by this Resolution
Resolution Mar 2-9—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-10—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-11—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-12—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer been applicable
Resolution Mar 2-13—SUP
Reason: By 1979, the necessary actions will have been completed, and this Resolution will no longer be applicable
Resolution Mar 2-14—NOC
Reason: This Resolution is still applicable. It deals with the narrowing of VHF channel spacing and the associated transition schedule; the U.S. has been generally ahead of the stated schedule.
Resolution Mar 2-15—NOC
Reason: This Resolution is still applicable
Resolution Mar 2-20—
Reason: Reviewed; see narrative par. 205
Resolution Mar 2-21—NOC
Reason: This Resolution is still applicable

Recommendations

Recommendation 10—NOC
Reason: This Recommendation is still applicable
Recommendation 11—NOC
Reason: This Recommendation is still applicable
Recommendation 14
Reason: Reviewed; no action proposed
Recommendation 15
Reason: Reviewed; no action proposed
Recommendation 20—NOC
Reason: This Recommendation is still applicable; there is still an obligation to provide for an aviation collisibn avoidance system
Recommendation 21
Reason: Reviewed; no action proposed
Recommendation 22
Reason: Abrogated by Resolution Mar 1
Recommendation 23
Reason: Abrogated by Resolution Mar 1
Recommendation 24
Reason: Abrogated by Resolution Mar 1
Recommendation 25
Reason: Abrogated by Resolution Mar 1
Recommendation 26
Reason: Abrogated by Resolution Mar 1
Recommendation 27
Reason: Abrogated by Resolution Mar 1
Recommendation 28
Reason: Abrogated by Resolution Mar 1
Recommendation 30
Reason: Abrogated by Resolution Mar 1
Recommendation 31—NOC
Reason: This Recommendation is still applicable; see narrative par. 207
Recommendation 32—SUP
Reason: This Recommendation has been overtake by events and is no longer applicable
Recommendation 33
Reason: Reviewed; no action proposed
Recommendation 36
Reason: Abrogated by Resolution Spa 2-8
Recommendation 37—SUP
Reason: This Recommendation has been overtaken by events and is no longer applicable; see narrative par. 203
Recommendation Spa 1
Reason: Abrogated by Resolution Spa 2-8
Recommendation Spa 2
Reason: Abrogated by Resolution Spa 2-8
Recommendation Spa 3
Reason: Abrogated by Resolution Spa 2-8

Recommendation Spa 5—MOD

RECOMMENDATION NO. SPA 5

to the C.C.I.R. Relating to the Broadcasting-Satellite Service

The Extraordinary Administrative Radio Conference, Geneva, 1963, considering

a) that the use of satellite transmissions for direct reception by the general public of sound and television broadcasts may be possible in the future;

b) that the C.C.I.R. is studying the technical feasibility of sound and television broadcasting from satellites, the technically suitable frequency bands for such a service, including the possibility of sharing with terrestrial services;

recommends

that the C.C.I.R. expedite its studies and make early recommendations on Question [241 (IV),] *5-2/11* Geneva, [1963] *1974*, in particular, regarding those parts of the question relating to the technical feasibility of broadcasting from satellites, the optimum technical characteristics of the systems to be used, what bands would be technically suitable and whether and under what conditions those bands could be shared between the broadcasting-satellite and terrestrial services.

Reason: This Recommendation is modified in order to make it current.
Recommendation Spa 6
Reason: Abrogated by Resolution Spa 2-8
Recommendation Spa 7
Reason: Reviewed; no action proposed
Recommendation Spa 8—NOC
Reason: This Recommendation is still applicable
Recommendation Spa 11—NOC
Reason: This Recommendation is still applicable
Recommendation Aer 1—SUP
Reason: Replace with ADD Recommendation Aer 2-(B) as stated in proposals for 1978 AWARC FCC Docket No. 20290
Recommendation Mar 1
Reason: Abrogated by Resolution Mar 2-1
Recommendation Mar 4
Reason: Abrogated by Resolution Mar 2-1
Recommendation Mar 5
Reason: Reviewed; no action proposed
Recommendation Mar 6—SUP
Reason: By 1979, this Recommendation will have been overtaken by events and will no longer be applicable
Recommendation Mar 7
Reason: Abrogated by Resolution Mar 2-1
Recommendation Mar 8
Reason: Abrogated by Resolution Mar 2-1
Recommendation Mar 2-1
Reason: Reviewed; see narrative par. 208
Recommendation Mar 2-2—SUP
Reason: The concept of separation of calling channels from distress channels is not appropriate (Draft CCIR SG8 report supports this reason)
Recommendation Mar 2-3—SUP
Reason: The need for common channels to avoid new crystallization of equipment for international voyages will diminish with the increased use of sythesizers
Recommendation Mar 2-7—NOC
Reason: This Recommendation is still applicable
Recommendation Mar 2-8—NOC
Reason: This Recommendation is still applicable; see narrative par. 209
Recommendation Mar 2-9
Reason: Reviewed; see narrative par. 209
Recommendation Mar 2-11
Reason: Reviewed; see narrative par. 210
Recommendation Spa 2-1
Reason: Reviewed; see narrative par. 211
Recommendation Spa 2-3
Reason: Reviewed; see narrative par. 212
Recommendation Spa 2-4
Reason: Reviewed; see narrative par. 212
Recommendation Spa 2-5
Reason: Reviewed; see narrative par. 212
Recommendation Spa 2-6
Reason: Reviewed; no action proposed
Recommendation Spa 2-7
Reason: Reviewed; see narrative par. 213

APPENDIX 5.—EVALUATION OF THE IMPACT OF PROPOSED FIXED SATELLITE ALLOCATIONS

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3.2 Frequency Assignment Distribution for the 3.3–3.7 GHz Bands.
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4.3 Distribution of Frequency Assignments having High Transmit Power (>1 kW).
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5.2 Frequency Assignment Distribution for the 5.6–5.925 GHz Bands.
6.1 Equipment Characteristics.

SECTION 1. INTRODUCTION

1.1 *Background.* Projections in growth of civilian use of the satellite service is expected to increase by a factor of 8 within the next 25 years. Some of the expansion may be absorbed by using the 12/14 GHz and 17.7/27.5 GHz frequency bands. However, due to economic considerations associated with maximum utilization of existing hardware, use of the spectrum below 10 GHz is highly desirable. The bands presently used by INTELSAT are: uplink of 5.925–6.425 GHz and downlink of 3.7–4.2 GHz. Internationally, the following bands are also allocated worldwide for the Fixed Satellite service: 3.4–3.7 GHz (downlink) and 4.4–4.7 GHz (uplink). In Region 1, the band 5.725–5.925 GHz and in Region 3, the band 5.850–5.925 GHz are allocated to the fixed satellite service. The present fixed satellite international allocations and a system summary for all the bands between 2.5–10.0 GHz are provided in table 1.1. Nationally the 3.3–3.7 GHz, 4.4–4.9 GHz and 5.65–5.925 GHz bands are allocated to the Government on a primary basis for: radiolocation, aeronautical radionavigation and fixed and mobile. The government is projecting a steady growth in the use of all three bands over the next twenty years.

The Third Notice of Inquiry (3rd NOI) suggested the following additional bands for the non-Government fixed satellite service: 4.7–4.9 GHz, 5.625–5.925 GHz and 6.425–6.925 GHz. As mentioned above, the first two bands are allocated to the Government on a primary basis. The 4.4–4.9 GHz frequency band is allocated to the fixed and mobile services and the 5.650–5.925 GHz frequency band is allocated to the radiolocation service.

The fixed satellite service frequency pairing resulting from the allocation suggested in the 3rd NOI would be:

(a) 5.625–5.925 GHz (uplink) and 3.4–3.7 GHz (downlink). Effectively, this would allow these bands to be paired with existing fixed satellite bands so that the combined bands would be 5.625–6.425 GHz (uplink) and 3.4–4.2 GHz (downlink).

(b) 6.425–6.925 GHz (uplink) and 4.4–4.9 GHz (downlink). As shown, these proposed allocations would benefit the non-Government fixed satellite service at the expense of loss of spectrum to the Government users or at least limitations on the current access to the present spectrum space. Thus, 2.6 GHz or 26% of the spectrum below 10 GHz would be available to non-Government fixed satellite use. The Office of Telecommunications Policy (OTP) considers this problem to be one of the major issues confronting current WARC deliberations in view of the national economic and operational considerations involved.

TABLE 1.1

Present Fixed Satellite International Allocations and Usage in the Bands Between 2.5 and 10.0 GHz

FREQUENCY BAND, GHZ	REGIONS	LINK	PRESENT SYSTEMS
2.5-2.535	2,3	dwn	NONE KNOWN
2.655-2.69	2,3	up	ATS.6 (experimental TV down link)
3.4-3.5	1,2,3	dwn	MOLNIA, STATSIONAR
3.5-3.7	1,2,3	dwn	MOLNIA, STATSIONAR
3.7-4.2	1,2,3	dwn	ATS,6, ANIK, COMSTAR, INTELSAT MARISAT, MOLNIA, MOLNIYA, PALAPA, SATCOM, STATSIONAR, SYMPHONIE, WESTAR
4.4-4.7	1,2,3	up	NONE KNOWN
5.725-5.85	1	up	MOLNIA, STATSIONAR
5.85-5.925	1,3	up	MOLNIA, STATSIONAR
5.925-6.425	1,2,3	up	ATS-6, ANIK, COMSTAR, INTELSAT, MARISAT, MOLNIA, MOLNIYA, PALAPA, SATCOM, STATSIONAR, SYMPHONIE, WESTAR
7.25-7.75	1,2,3	dwn	DSCS, NATO, UK SKYNET
7.9-8.4	1,2,3	up	DSCS, NATO, UK SKYNET

In addition to the fixed satellite allocation, the 3rd NOI also suggested the addition of the non-Government fixed service in the 3.3–3.4 GHz sub-band.

1.2 *Objective.* The objective of this task is to evaluate the impact on the Federal Government operation of non-Government fixed satellite use in the bands: 3.4–3.7 GHz, 5.6–5.9 GHz and 4.4–4.9 GHz and fixed service in the band 3.3–3.4 GHz.

1.3 *Approach.* This study provides an assessment, based upon presently available information, of the Government equipment currently used or planned for near future use in the frequency bands previously discussed. Also, expansion of the ISM allocation (wireless transmission of power) has been considered. A review of the sharing studies performed by the non-Government Fixed Satellite groups and the military has been made. Also, preliminary Government resource assessments and sharing analyses were made. The assessment and sharing analyses information was used to evaluate the impact of allocating the non-Government fixed satellite and fixed services in Government bands. Various Federal Government major system files, frequency files and planning documentation were used to obtain assessment information for the above-mentioned bands.

SECTION 2.—INITIAL FINDINGS

2.1 *Introduction.* A summary of the initial findings for the 3.3–3.7 GHz, 4.4–4.9 GHz and 5.625–5.925 GHz frequency bands are provided in this section. The findings are supported by the allocation and assessment information given in Sections 3 through 5 and the compatibility analysis given in Section 6. A further review of Sections 3 through 6 is suggested in order to obtain a more comprehensive understanding of band

utilization and the limitations of the electromagnetic compatibility (EMC) analysis.

2.2 *Initial Findings.* The results of the initial findings indicate that allocation of the proposed fixed satellite service in all of the three overall bands would have a dramatic national economic and performance impact upon the Government services. It appears that some spectrum could be made available with limited impact for use by the fixed satellite service. The bands and the spectrum space are:

Approximately 100 MHz of spectrum in the 3.5–3.7 GHz appears to be lightly occupied at present by land and shipboard radars. Potentially, there may be about 200 airborne radars operating in these bands; however, the equipments may operate below 3.5 GHz. The Navy operates a small quantity of safety of life services equipments in the sub-bands 3.55–3.70 GHz and the FAA is planning to use this band for ASR's. Thus, overall sharing procedures will be quite complex and must be developed before considering the fixed satellite allocation.

The 5825–5925 MHz band is heavily occupied by high powered radars which perform a variety of functions.

The band 4.4–4.9 GHz is one of the few bands allocated to the fixed and mobile services which are generally available to the military in all nations with which the U.S. is allied militarily. As such, this band is considered critical to inter-operability among tactical forces. Additionally, this band is used Nationally by high powered troposcatter and airborne mobile systems. Consequently, accommodation of the proposed fixed satellite allocation in the band 4.4–4.9 GHz, on a national basis, does not appear feasible.

The proposed fixed service allocations, as proposed on a secondary basis, would have a lesser impact upon operation of the radiolocation service. If the fixed service is allocated on a primary basis, it may place unacceptable operational constraints upon systems being developed for use in the 3.3–3.4 GHz sub-band.

A summary of the findings for each of the three bands follows:

3.3–3.7 GHz Bands—Utilization. There are operational military systems in these bands. New military major systems are being developed by the Air Force, Army and Navy. All of these systems are capable of operating in the bands below 3.5 GHz.

A review of the military equipment quantities shows there are several hundred Army ground-based radars, over 500 Air Force airborne radars and under 50 Navy shipboard radars capable of operating in these bands. The ground-based radars operate in the bands below 3.5 GHz. The airborne radars operate in the bands between 3.3–3.7 GHz. A portion of the shipboard radars are capable of operating above 3.6 GHz.

The assignment records[1] indicate that of the total assignments, 95% are military used principally for tactical, training and experimental purposes. A distribution of the frequency assignments shows that the 3.5–3.7 GHz band may not be heavily occupied on land within the continental U.S. The mobile radars (shipboard) operate within interference range of all coastal areas.

The FAA is the only non-military agency with significant present or planned use of the 3.3–3.7 GHz bands. Specifically, the FAA is planning to utilize the 3.5–3.7 GHz band for operation of low cost ASR's.

[1] The number of frequency assignments may not be necessarily equated to the number of equipments, since a single assignment may represent a large number of equipments.

EMC Considerations. The proposed fixed satellite service (downlink) can cause interference to ground-based and shipboard radars if the maximum power flux density (PFD) limits of -152 dBw/m^2/4 kHz are assumed. Preliminary analysis indicates that a 20 dB reduction in PFD would probably be an acceptable limit to preclude interference to radars.

Representative, preliminary coordination distances required to allow sharing between the existing and proposed services are:

Approximately 300 statute miles separation between terrestrial radiolocation and radionavigation service and satellite earth stations may be required to achieve the fixed satellite service performance criteria.

Distances of 250 miles between airborne radars[2] and earth stations (earth station mainbeam coupling does not occur) will be required.

The coordination distance between airborne radars[2] and the fixed service will vary from a maximum of 250 miles (low probability mainbeam coupling case) to about 10 miles (sidelobe coupling).

Coordination distances of up to 210 miles between terrestrial radars and fixed stations are required for the extreme case of mainbeam/mainbeam coupling. The distance is reduced to less than 85 miles for mainbeam/sidelobe coupling.

It is evident from the above coordination distances that Federal Government operations in the band between 3.3–3.7 GHz would be severely restricted if a large number of earth stations or fixed stations operated within the continental U.S.

4.4–4.99 GHz Band—Utilization. Military systems in this band consist of six operational or acquisition stage systems and nine developmental systems. It is intended that most of the system equipment can operate throughout the 4.4–4.9 GHz band. Two of the developmental systems use troposcatter equipment. One of these systems will contain 400 equipments that may operate in the troposcatter mode. Six of the developmental systems will use equipment within the mobile service that are air deployed.

Preliminary military equipment quantity information shows that the Army has over 1000 equipments capable of operating in this band. The Air Force has about 50 nomenclatured equipments listed which also indicates heavy use of this band. Navy information shows there are over 100 land mobile equipments in the bands between 4.4–4.9 GHz.

The assignment records reflect approximately 1250 military assignments within the US. These assignments are generally used for tactical and training purposes, data transmission, and a variety of testing and experimental purposes. The assignments, including those with high power, are evenly distributed across the 500 MHz of spectrum.

In addition to the above usage, the radio astronomy service observes the formaldehyde line frequency in the sub-band 4.825–4.835 GHz.

EMC Considerations. Emissions by the satellite (fixed satellite downlink) can cause interference to troposcatter systems if the troposcatter antennas point toward the geostationary orbit. Three general cases of PFD limits and restrictions upon the troposcatter pointing angles are:

± 4 degrees for a PFD of -152 dBw/m^2/4 kHz

± 2 degrees for a PFD of -160 dBw/m^2/4 kHz

[2] The distances do not include consideration of newly developed radars that may operate in these bands.

A PFD of −173 dBw/m²/4 kHz would reduce the INR to −10dB and is probably an acceptable limit.

The coordination distance separation between troposcatter systems and satellite earth stations are approximately 300 miles.

The required coordination distance between aeronautical mobile stations and satellite earth stations is about 350 miles.

The fixed satellite (downlink) and radio astronomy service are incompatible. In-band emissions from the satellite would cause harmful interference to the radio astronomy service.

5.625–5.925 GHz Bands—Utilization. The military has six operational systems in these bands. Two of these systems, one Air Force and one Navy, each employs a large number of equipments. The Air Force has over 70 weather radars operating in bands 5.45 and 5.65 GHz. The Navy has about 600 shipboard equipments operating in the bands between 5.4–5.9 GHz.

A summary of the total military equipment which includes all systems shows that the Air Force has approximately 200 radars capable of operating in the bands between 5.625–5.925 GHz. The Navy has over 600 shipboard radars capable of operating in these bands. All of the radars operating above 5.8 GHz appear to be tunable. The Army is developing a large system for operation in the bands below 5.8 GHz. In addition, the Army operates on its test ranges, precision tracking radars with assignments up to 5.925 GHz.

The assignment records reflect over 600 assignments in these bands. Of this total, 529 are military and 71 are Commerce. These assignments are used for air defense, testing and training purposes and for weather radars. The 71 Commerce assignments are in support of the National Weather Service weather network. The Commerce assignments are made in the sub-band 5.6–5.65 GHz. There are about 150 assignments in the sub-band between 5.825–5.925 GHz. Only 12 of these assignments reflect fixed tuned equipments.

In addition to the above utilization, NASA has proposed Wireless Transmission of Power in the band 5800 ±50 MHz.

EMC Considerations. Weather and radiolocation radars are not compatible with the proposed fixed satellite (uplink) allocation. The INR during periods of radar mainbeam coupling would be 30 dB or greater.

The Wireless Transmission of Power system does not appear to be compatible with the proposed fixed satellite (uplink) allocation. Consideration was only given to the space-to-earth link since this is the most desirable mode of operation.

Section 3.—Allocation and Assessment of the 3.3–3.7 GHz Bands

3.1 *Present Frequency Allocation.* The existing International Frequency Allocation and National Provisions for the 3.3–3.7 GHz bands are provided in table 3.1. The National Provisions include the Governmental allocations, non-Government allocations and applicable footnotes. Under the National Provisions, the primary services and their associated bands are:

Radiolocation	3.3–3.7 GHz
Aeronautical radionavigation (ground-based)	3.5–3.7 GHz

In the 3.3–3.5 GHz band, Government radiolocation is primary and limited to the military agencies (G31). Survey operations are authorized for Government and non-Government use on a secondary basis (US 108). Non-Government radiolocation and amateur services are secondary services.

In the 3.5–3.7 GHz band, Government radiolocation and ground-based aeronautical radionavigation are primary services. Non-military radiolocation is secondary to the military service (G59). Non-Government radiolocation is a secondary service (US 110).

The International Provisions differ from the U.S. in that these provisions allow the fixed, fixed satellite, and mobile services to operate in the 3.3–3.7 GHz bands. The services and International Regions associated with each of the frequency bands are:

a. 3.3–3.4 GHz:

1. The radiolocation service is allocated on a primary basis worldwide.

2. In Region 1, the radionavigation service is also allocated (370).

3. The fixed and mobile services are also allocated in some countries (371).

4. The amateur service is allocated on a secondary basis in Regions 2 and 3.

Table 3.1 Frequency Allocation for the 3.3–3.7 GHz Bands

INTERNATIONAL			UNITED STATES				
Region 1 MHz	Region 2 MHz	Region 3 MHz	Band MHz 1	National Provisions 2	Government Allocation 3	Non-Government Allocation 4	Remarks 5
3300–3400 RADIOLOCATION 370 371	3300–3400 RADIOLOCATION Amateur 376		3300–3500	G, NG US108	RADIOLOCATION	Amateur Radiolocation	Although the band 10000–10500 MHz presently seems most suitable as a common frequency band for such survey operations in different countries, future development, if required, should be directed to the band 34.0–35.6 GHz, within the overall band 33.4–36.0 GHz, with no new development below 10000 MHz.
3400–3600 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE Radiolocation 372 373 374 375	3400–3500 FIXED-SATELLITE (Space-to-Earth) RADIOLOCATION Amateur 376				G31		
	3500–3700 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE RADIOLOCATION	3500–3700 FIXED-SATELLITE (Space-to-Earth) RADIOLOCATION Fixed Mobile 377 378	3500–3700	G, NG US110	AERONAUTICAL RADIONAVIGATION (Ground-based) RADIOLOCATION G59 G110	Radiolocation	
3600–4200 FIXED FIXED-SATELLITE (Space-to-Earth) Mobile 374	3700–4200 FIXED FIXED-SATELLITE (Space-to-Earth) MOBILE 379		3700–4200	NG		FIXED FIXED-SATELLITE (Space-to-Earth) NG41	

Government (G) Footnotes

(These footnotes, each consisting of the letter "G" followed by one or more digits, denote stipulations applicable only to the Government.)

G31 In the band 3300-3500 MHz, the Government radiolocation is limited to the military services, except as provided by footnote US100.

G59 In the bands 902-928 MHz, 3100-3300 MHz, 3500-3700 MHz, 5250-5350 MHz, 8500-9000 MHz, 9200-9300 MHz, 13.4-14.0 GHz, 15.7-17.7 GHz and 24.05-24.25 GHz, all Government non-military radiolocation shall be secondary to military radiolocation, except in the sub-band 15.7-16.2 GHz airport surface detection equipment (ASDE) is permitted on a coequal basis subject to coordination with the military departments.

G110 Government ground-based stations in the aeronautical radionavigation service may be authorized between 3500 and 3700 MHz where accommodation in the 2700-2900 MHz band is not technically and/or economically feasible.

US Footnotes

(These footnotes, each consisting of the letters US followed by one or more digits, denote stipulations applicable to both Government and non-Government stations.)

US108 Within the bands 3300-3500 MHz and 10000-10500 MHz, survey operations, using transmitters with a peak power not to exceed five watts into the antenna, may be authorized for Government and non-Government use on a secondary basis to other Government radiolocation operations.

US110 In the frequency bands 3100-3300 MHz, 3500-3700 MHz, 5250-5350 MHz, 8500-9000 MHz, 9200-9300 MHz, 9500-10000 MHz, 13.4-14.0 GHz, 15.7-17.7 GHz, 24.05-24.25 GHz and 33.4-36 GHz, the non-Government radiolocation service shall be secondary to the Government radiolocation service and to airborne doppler radars at 8800 MHz, and shall provide protection to airborne surface detection equipment (ASDE) operating between 15.7-16.2 GHz.

International Footnotes

(These footnotes come from the Radio Regulations, Geneva, 1959, the Final Acts of the Space EARC, Geneva, 1963, the Final Acts of the Maritime Mobile WARC, Geneva, 1967, or the Final Acts of the Space WARC, Geneva, 1971.)

370 In Albania, Austria, Bulgaria, Hungary, Poland, Portugal, Roumania, Switzerland, Czechoslovakia and the U.S.S.R., the band 3 300-3 400 MHz is also allocated to the radionavigation service.

371 In Austria, Greece, Norway, the Netherlands, Portugal and Sweden, the band 3 300-3 400 MHz is also allocated to the fixed and mobile services.

372 In Austria, the band 3 400-3 600 MHz is also allocated to the radionavigation service.

373 In Denmark, Norway, Sweden and Switzerland, the fixed, mobile, radiolocation and fixed-satellite services operate on a basis of equality of rights in the band 3 400-3 600 MHz.

374 In the United Kingdom, the band 3 400-3 770 MHz is allocated to the radiolocation service.

375 In Austria, Israel, Netherlands, F. R. of Germany and the United Kingdom, the band 3 400-3 475 MHz is also allocated, on a secondary basis, to the amateur service.

376 In China, India, Indonesia, Japan and Pakistan the band 3 300-3 500 MHz is also allocated to the fixed and mobile services.

377 In China and Japan the band 3 500-3 700 MHz is also allocated to the fixed and mobile services.

378 In Japan, in the band 3 620-3 700 MHz, the radiolocation service is excluded.

b. 3.4–3.5 GHz:

1. The radiolocation service is allocated on a primary basis in Regions 2 and 3 and on a secondary basis in Region 1.

2. The fixed-satellite service is allocated on a primary basis worldwide.

3. In Austria, the radionavigation service is also allocated in the band 3.4–3.6 GHz (372).

4. The fixed and mobile services are also allocated in Region 1 (373) and Regions 2 and 3 (376).

5. The amateur service is allocated on a secondary basis in Regions 2 and 3.

c. 3.5–3.7 GHz:

1. The radiolocation service is allocated on a primary basis in Regions 2 and 3 (except Japan (378)).

2. The fixed-satellite service is allocated on a primary basis worldwide.

3. The fixed service is allocated on a primary basis in Regions 1 and 2 and on a secondary basis in Region 3.

4. The mobile service is allocated on a primary basis in Region 2 and on a secondary basis in Regions 1 and 3.

5. In Austria, the radionavigation service is also allocated in the band 3.4–3.6 GHz.

3.2 *Proposed Changes to the Present Allocations.* The 3rd NOI contained proposals for the addition of several services in portions of the spectrum between 3.3–3.7 GHz. The proposed additions, as provided by the Table of Allocations, are:

1. In Region 2, the addition of the fixed service on a secondary basis in the band 3.3–3.4 GHz.

2. In Region 1, the addition of the amateur service on a secondary basis in the band 3.4–3.41 GHz.

3. Worldwide addition of the amateur-satellite service on a secondary basis in the band 3.4–3.41 GHz.

4. In Region 2, the addition of the aeronautical radionavigation service on a primary basis in the band 3.5–3.7 GHz.

In addition to the proposals set forth above, the 3rd NOI also contained discussions on spectrum expansion requirements of the commercial fixed-satellite service. The attempt to obtain a fixed satellite downlink allocation in the band 3.4–3.7 GHz was briefly discussed. This proposed downlink would be paired with a proposed uplink in the band 5.625–5.925 GHz.

3.3 *Military Systems Operating in the Band.* The military (Air Force, Army and Navy) have several radar systems that currently operate or are being developed to operate in the bands 3.3–3.7 GHz. Classified information concerning these systems has been made available to the FCC staff. A brief functional description and operational status of some Air Force and Army systems follows:

Air Force. The equipments functioning as part of the Air Force systems do not operate above 3.5 GHz. One of these systems uses electronic warfare simulators in all types of aircraft. Bomb directed controls are also employed. This system is presently operational.

The SAC Automated Command Control System (SACCS) transmits, collects, processes and displays data to assist CINCSAC in command and control of armed forces. The system is presently operational.

Army. The Army system with equipment capable of operating in this band is used to provide defense against aircraft and missiles. Training sites exist in Florida and Texas. The system equipment does not tune above 3.5 GHz.

Navy. Navy systems provide search, tracking, and navigation functions. Due to the various functions performed, capability and flexibility to operate throughout the band is critical to successful shipboard electromagnetic compatibility.

3.4 *Military Equipment Summary.* Information on Air Force, Army and Navy present and planned worldwide utilization of the 3.3–3.7 GHz band is provided in this section.

Air Force. A list of the Communication-Electronic (C–E) equipment indicates that the Air Force has 9 types of nomenclatured equipments capable of operating in bands 3.3–3.7 GHz. A few of these equipments are ground-based radars; however, over 500 are airborne radionavigation radars. Approximately 50% of these airborne radars tune across the band 3.4–3.7 GHz. The ermaining 50% of the airborne radars tune in band 3.3–3.6 GHz.

Army. An Army C–E equipment list contains three types of nomenclatured equipments capable ofo perating in 3.1–3.5 GHz bands. These represent a radar with planned operational availability beginning in 1980, and a total of approximately 300 operational radars. Theo perational availability of the present operational radars extend to 1985.

Navy. A Navy equipment inventory list indicates that there are five types of shipboard radars capable of operating in the 3.3–3.7 GHz bands. These five nomenclatures represent equipments that are shipboard search, tracking or navigation radars. The search/tracking radars are tunable with a maximum operational frequency of 3.6 GHz. The navigation radars operate within the sub-band 3.55–3.7 GHz.

3.5 *Government usage of bands within the U.S.* The frequency records contain over 60 frequency assignments in the 3.3–3.7 GHz bands. Of this total, one is a National Aeronautics and Space Administration (NASA) assignment and the remainder are military. The station class associated with these assignments are radiolocation land and mobile stations and experimental stations. The four Government agencies currently using the bands 3.3–3.7 GHz and their approximate percentage of frequency assignments are:

Agencies:	*Percent of total*
Air Force	39
Army	20
Navy	39
NASA	<2

A distribution of frequency assignments for each 100 MHz of spectrum in the bands between 3.3 to 3.7 GHz is provided in table 3.2. The number of assignments associated with each agency are also given. Many of the equipments tune across several bands, thus, table 3.2 does not provide the exact number of records.

Table 3.2 Frequency Assignment* Distribution for the 3.3-3.7 GHz Bands

AGENCY	FREQUENCY SUB-BAND, GHz			
	3.3-3.4	3.4-3.5	3.5-3.6[1]	3.6-3.7[1]
AF	21	19	9	11
AR	11	11	1	1
N	13	17	7	2
NASA	1	1		
Total	46	48	17	14

NOTE:

1. The FAA is planning to use the band 3.5-3.7 GHz for low cost ASR's in the future.

*/ Does not necessarily indicate the number of equipments or systems operating in a frequency subband.

The assignments were used to obtain data on band usage for each of the Government agencies within the US. A summary of the usage for each of the four agencies, as well as FAA planned usage of the 3.5–3.7 GHz band, is provided in this sub-section.

Air Force. The Air Force uses this band for tactical, testing, evaluation and experimental purposes. The Air Force currently has assignments in the 3.3–3.7 GHz bands that are distributed in 11 states. Of these assignments, the majority have experimental station classes. The remaining assignments are radio-location, land and mobile stations. Most of these assignments are land-based stations used for testing. The remainder concern an airborne tactical radar that may be deployed anywhere within the US.

Army. The Army uses this band for operation of air defense radars and for experimental testing. The transmitter locations associated with these assignments are Alaska, Alabama, California, Florida, New Mexico and Utah. Of the assignments, the majority are radiolocation land stations and the remainder are experimental stations.

Federal Aviation Administration (FAA). The FAA plans to develop low cost Airport Surveillance Radars (ASR) in the 3.5–3.7 GHz band. Projected plans indicated that there will be at least 40 ASR's in operation within the next ten years. These radars would employ coaxial magnétrons or klystron power amplifiers with a peak power of 50 kW to 100 kW and would operate in conjunction with a frequency scanning antenna.

Navy. The Navy uses the 3.3–3.7 GHz bands for operation of shipboard radars, training and testing of developmental radar systems. The station classes associated with these assignments are radiolocation land station, radiolocation mobile station and experimental stations.

The radiolocation land stations and experimental stations are located in California, Florida, Maryland, New Mexico, Puerto Rico, Tennessee, Virginia, Virgin Islands, and Washington. These stations are used for training and testing purposes.

The remaining assignments are radiolocation mobile stations that are shipboard radars representing several equipments. The shipboard radars may operate within the coastal areas of the U.S.

National Aeronautics and Space Administration (NASA). NASA has one experimental radar capable of operating in the 3.1–3.5 GHz bands. The radar is used for tracking V/STOL vehicles in California.

Section 4. Allocation and Assessment of the 4.4–4.99 GHz Band

4.1 *Present Frequency Allocation.* The existing International Frequency Allocation and National Provisions for the 4.4–4.99 GHz band are given in table 4.1.

The National Provisions allocate the fixed and mobile services, on a primary basis. In the band 4.825–4.835 GHz, every practical effort will be made to avoid assignment of frequencies in the fixed and mobile service (US203) due to radio astronomy observation.

The International Provisions allocate the fixed and mobile services on a primary basis in the 4.4–4.99 GHz band. The International Provisions also allocate the fixed-satellite service (earth-to-space), on a primary basis, in the band 4.4–4.7 GHz. All of the international footnotes (233B, 354, 382A and 382B) pertain to consideration of radio astronomy operations in the band 4.7–5.0 GHz.

4.2 *Proposed Changes to the Present Allocations.* The 3rd NOI contained discussions pertaining to the accommodation of the fixed satellite and radio astronomy proposed allocation within the band 4.4–4.9 GHz. Neither of these proposed allocations was provided in the Table of Allocations. However, a proposal was included to allocate Radio Astronomy as a primary service in the 4.95–4.99 GHz portion of the band.

The radio astronomers have expressed a desire to upgrade the band 4825–4835 MHz to table status. The radio astronomy service uses this band for observation of the formaldehyde line.

A proposal that would provide additional spectrum for the non-Government fixed satellite service in the band 4.4–4.9 GHz was briefly discussed in the 3rd NOI. This proposed fixed satellite allocation would be used for fixed satellite downlink purposes. A companion uplink would be provided by the bands 6.425–6.925 GHz which are presently allocated for non-Government purposes by the National Provisions.

TABLE 4.1

Frequency Allocation for the 4.4–4.9 GHz Band

INTERNATIONAL			UNITED STATES				
Region 1 MHz	Region 2 MHz	Region 3 MHz	Band MHz 1	National Provisions 2	Government Allocation 3	Non-Government Allocation 4	Remarks 5
4400-4700	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE		4400-4990	G US203	FIXED MOBILE		Unprotected radio astronomy observations are being carried out in the band 4950-4990 MHz. Users should, where possible, bear in mind the needs of the radio astronomy service in their future planning for the use of this part of the band.
4700-4990	FIXED MOBILE 233B 354 382A 382B						

US Footnotes

(These footnotes, each consisting of the letters US followed by one or more digits, denote stipulations applicable to both Government and non-Government stations.)

US203 Government and non-Government radio astronomy observations of the formaldehyde line frequencies 4825-4835 MHz and 14.485-14.515 GHz may be made at certain Radio Astronomy Observatories as indicated below:

Bands to be Observed		Observatory
4 GHz	14 GHz	
X	X	National Radio Astronomy Observatory Green Bank, W. Va.
X	X	Tucson (Kitt Peak), Ariz.
X	X	Naval Research Laboratory Maryland Point, Md.
X	X	Hat Creek Observatory (U of Calif.) Hat Creek, California
X	X	Haystack Facility (MIT-Lincoln Lab) Tyngsboro, Mass.
X		Agassiz Station (Harvard College) Harvard, Mass.
X	X	Owens Valley Radio Observatory (Cal. Tech.) Owens Valley, California
X		University of Michigan Dexter, Michigan
X		Harvard Observatory Ft. Davis, Texas
	X	University of Texas Ft. Davis, Texas
	X	Aerospace Corp. El Segundo, California (to be moved to Owens Valley)

Every practicable effort will be made to avoid the assignment of frequencies to stations in the fixed or mobile services in these bands. Should such assignments result in harmful interference to these observations, the situation will be remedied to the extent practicable.

International Footnotes

(These footnotes come from the Radio Regulations, Geneva, 1959, the Final Acts of the Space EARC, Geneva, 1963, the Final Acts of the Maritime Mobile WARC, Geneva, 1967, or the Final Acts of the Space WARC, Geneva, 1971.)

233A In Argentina and Uruguay, the bands 36.65-36.85 MHz, 41.15-41.35 MHz and 45.65-45.85 MHz, and in Argentina, Brazil and Uruguay the band 170.55-170.95 MHz, are allocated to the radio astronomy service and no assignments shall be made to the fixed and mobile services in these bands.

354 In Albania, Bulgaria, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the bands 1 660-1 690 MHz, 3 165-3 195 MHz, 4 800-4 810 MHz, 5 800-5 815 MHz and 8 680-8 700 MHz are also used for radio astronomy observations.

382A Radio astronomy observations on the formaldehyde line (rest frequency 4 829.649 MHz) are being carried out in a number of countries under national arrangements. Administrations should bear in mind the needs of the radio astronomy service in their future planning of the band 4 825-4 835 MHz.

382B Radio astronomy observations in the band 4 950-4 990 MHz are being carried out in a number of countries under national arrangements. Administrations should bear in mind the needs of the radio astronomy service in their future planning of this band.

4.3 *Military Systems Operating in the Band.* The military (Air Force, Army and Navy) have a large number of operational and developmental communication systems with equipment capable of operation in the band 4.4-4.9 GHz. Classified information concerning these systems has been made available to the FCC staff. Most of the nomenclatured equipments functioning as part of these systems have the capability of turning from 4.4 to 4.99 GHz. A brief functional description of most of these systems is discussed herein.

Air Force. The Air Force systems are summarized below:

A system designed to provide, via relay pods carrier aboard an aircraft, command to a Remotely Piloted Vehicle (RPV) plus telemetry and video information from the RPV, is in the developmental stage.

The BAREBASE system is a concept designed to rapidly deploy a tactical operation to an airstrip. The equipment that is used will depend on where BAREBASE is deployed and which Air Force units will provide the support. This system is presently operational.

A system that will enable reconnaissance aircraft to relay infrared sensor data to remote ground terminals is in the research/development stage.

The Tactical Air Control System (TACS) provides a transportable tactical air control system capable of directing and controlling all tactical air operations. The TACS consists of 6 super systems. Two of these systems, the Air Force Component Command Post (AFCCP) and Forward Air Control Post, have equipment that operates in this band. This system is presently in the operational and acquisition phase.

The Television Ordnance Scoring System (TOSS) is an ordnance scoring system that locates the impact point of ordnance dropped from aircraft in a training or operational test environment. This system is in the procurement stage.

The WHITE ALICE is a troposcatter and microwave system that provides communications throughout Alaska. This system has been an operational system for several years and may be phased out in the near future.

A family of high speed digital troposcatter radios are being developed to help satisfy the communications requirements of tactical forces in 1980-1990. These sets will be capable of providing reliable communications over ranges up to 200 miles in the troposcatter mode and shall also be capable of operating as line of sight equipment. Approximately 400 units of these predevelopmental systems are planned for worldwide tactical deployment.

Army. The Army sytsems that have the capability of operating in this band are the Army Area Communications (AACOM) system, the AQUILA RPV system and an Area Wideband System.

The AACOM is an integrated communications system used to provide secure multichannel communications for Tactical Field Army Units. This system is in the acquisition stage.

The AQUILA RPV system is used to develop and test technology, perform real time surveillance, artillery adjustments, target location, acquisition and designation. The system is in the developmental stage.

An Area Wideband System will serve communications information transfer needs in an interconnected network. This system will provide digital high rate information transfer systems among multiple users. Planned initial operation of this system is 1978.

Marine Corps. The Marine Corps system is the Marine Air Command and Control System (MACCS). The MACCS permits centralized coordination and supervision of air

operations by the Marine Air Ground Task Force (MAGTF) aviation combat element commander. The major support element of MACCS are: Tactical Air Command Center (TACC), Tactical Air Operations Center (TAOC), Direct Air Support Center (DASC), Air Support Radar Team (ASRT), Tactical Air Control Parties (TACP) and the Marine Air Traffic Control Unit (MATCU). The system is operational with additional research, development, test and evaluation being undertaken. Certain links of this system are also capable of operating in the troposcatter mode.

Navy. The Navy systems are the Light Airborne Multipurpose System (LAMPS) and the Integrated Target Control System (ITCS).

The LAMPS provides various missions, such as anti-submarine warfare, artillery spotting, air to sea rescue. This system is in the developmental stage.

The ITCS is a drone control system used for control of various stages of drones. This system is in the developmental stage.

Air Force, Army, Navy. The TRI TAC systems will provide a compatible Tri service (Air Force, Army and Navy) communications system. The system is in the research/developmental stage.

4.4 *Military Equipment Summary.* Preliminary information on Air Force, Army and Navy present and planned worldwide spectrum usage of the 4.4–4.9 GHz band is summarized in this section.

Air Force. The list of C–E equipment indicates that the Air Force has about 50 types of nomenclatured equipments capable of operating in this band. These equipments are used for microwave relay, troposcatter communications, drone control, data relay, and telemetry. Approximately 20% of the nomenclatured equipments may be used for troposcatter. Of the total nomenclatured equipments, the majority are capable of operating throughout the band 4.4–4.9 GHz.

Army. The list of C–E equipment contains about 10 types of Army nomenclatured equipments that are capable of operating in the band 4.4–4.9 GHz. The Army uses these equipments for telemetry, data links, multichannel radar relay and nontactical command air-to-ground video purposes. Of this total, the majority of the nomenclatured equipments may be used as troposcatter systems. The nomenclatured equipments represent a quantity in excess of 1000. The planned equipment operational availability extends into the 1990 timeframe.

Navy. Navy information indicates there are 112 land mobile (including airborne) equipments operating in this band.

4.5 *Government Usage of Bands Within the U.S.* There are 1305 frequency assignments in the 4.4–4.9 GHz band. Of the total assignments, approximately 96% are military and of these, approximately 70% are used for some form of tactical or tarining operation.

The 1305 frequency assignments are used by six Government agencies. The six agencies and the approximate percentage of frequency assignments for each agency is tabulated as follows:

Agency:	*Percent of total*
Air Force (AF)	36
Army (AR)	18
Commerce (C)	<1
Energy Research and Development Administration (ERDA)	3
Navy (N)	42
National Aeronautics and Space Administration (NASA)	<1

A distribution of frequency assignments for each 100 MHz of the spectrum between 4.4–4.9 GHz and each agency is given in table 4.2. The assignment total for the 5 sub-bands does not equal 1305 since some of the assignments tune across several of these sub-bands. For example, the Army has 59 assignments that tune between 4.4 and 4.9 GHz and the Air Force has one assignment that tunes between 4.4 and 4.8 GHz.

The distribution of assignments having high transmit power (≥1 kW) is provided in table 4.3. As shown, the assignments with high transmit power characteristics are fairly evenly distributed in the five sub-bands. The station class associated with these high power stations are: fixed stations (FX), land stations of the mobile service (FL), telecommand mobile stations (MOD) and experimental stations (X[ ]).

The frequency records were used as the primary source to obtain data upon Government usage of the 4.4–4.9 GHz band within the US. A summary of the usage for each of the six Government agencies follows:

Air Force. A large percentage (about 50%) of the Air Force assignments in the 4.4–4.9 GHz band are for tactical and training use. Training activities include both Air National Guard and active duty units and are primarily associated with mobile troposcatter equipment. The balance of the AF assignments are used in a variety of test and developmental activities. These activities appear to be mainly associated with the transmission of wideband video and data links. The data link assignments are air-to-ground.

TABLE 4.3
Frequency Assignment Distribution for the 4.4–4.9 GHz Band

	FREQUENCY SUB-BAND GHz				
AGENCY	4.4–4.5	4.5–4.6	4.6–4.7	4.7–4.8	4.8–4.9
AF	91	120	80	96	90
AR	97	98	83	94	99
C	0	0	0	1	0
ERDA	7	7	10	9	8
N	113	106	127	102	99
NASA	2	1	2	0	2
TOTAL	310	332	302	302	298

TABLE 4.4
Distribution of Frequency Assignments Having High Transmit Power (≥ [illegible])

FREQUENCY SUB-BAND, GHz	NUMBER OF ASSIGNMENTS
4.4 – 4.5 GHz	149
4.5 – 4.6 GHz	150
4.6 – 4.7 GHz	144
4.7 – 4.8 GHz	148
4.8 – 4.9 GHz	149

Army. Army usage of the 4.4–4.9 GHz band divides into two categories: (1) tactical and training involving troposcatter equipment operating 1 to 10 kW power levels located in 28 States, and (2) operational point-to-point microwave communications equipment operating at low power (approximately 1 watt) levels. The first category represents about 65% of the Army assignments in the band and the second category, about 25%. The remaining 10 percent are data links or experimental RPV uplink assignments.

Commerce. The Commerce assignment is a low powered fixed station located in Boulder, Colorado. The fixed station is used for transmission of video information.

ERDA. The ERDA's forty-one assignments in the 4.4–4.9 GHz band are primarily used for telemetry and data relay stations in Nevada but there is a small network in Col-

orado and a point-to-point video link in California. The ERDA is also developing a new emergency system for use in the 4.4–4.9 GHz band. The system is a microwave link used to provide for the remote identification and analysis of nuclear devices. Two systems are being procured, requiring a total of 12 transmitters and 12 receivers. The system will be capable of being transported to any location within the US.

Navy. The majority of the Navy assignments (approximately 85%) are designated for use as tactical and training in accordance with note S189. Most of these assignments also carry the note S017 indicating that the frequencies are being used to train operators in the use of the equipment, such training probably taking place at Marine Corps facilities, and include the troposcatter mode of operation. The balance of the Navy assignments (about 15%) are designated for a variety of uses including communications with drones and aircraft from land-based and ship-based stations, experimental development and testing of systems, and mobile telecommand for drone control. An extremely large number of the Navy assignment contains NRM (number) fields in the remarks column. This indicates that the equipment quantity represented by these assignments are quite large.

NASA. Most NASA assignments in the 4.4–4.9 GHz band (of which there are less than ten) are associated with a point-to-point relay network centered in California. NASA also has one assignment for experimental research and one area wide assignment for a flight telemetering station.

SECTION 5.—ALLOCATION AND ASSESSMENT OF THE 5.6–5.925 GHz BAND

5.1 *Present Frequency Allocation.* The existing International Frequency Allocations and the National Provisions for the 5.6–5.925 GHz frequency bands are provided in table 5.1. The National Provisions include the Government allocations, non-Government allocations and applicable footnotes. The primary services and their associated bands for the National Provisions are:

	Gigahertz
Maritime radionavigation	5.60–5.65
Meteorological aids	5.60–5.65
Radiolocation	5.65–5.925

In the 5.6 to 5.65 GHz band, maritime radionavigation and meteorological aids are primary, on an equal basis (387), for both Government and non-Government agencies. The maritime radionavigation service is limited to shipboard radars (US65). Government radiolocation is primarily for the military services; however, limited secondary use is permitted by other Governmental agencies in support of experimentation and research programs (G56). Non-Government radiolocation is secondary to Government radiolocation (US51).

In the 5.65 to 5.925 GHz band, Government radiolocation is the primary service; however, this service is limited to the military agencies (G2). Industrial, Scientific and Medical (ISM) equipment operates within 5800±75 MHz band segment and the radiocommunication services must accept any harmful interference that may be received from ISM (391). The amateur secondary service is the only non-Government service permitted in this band and it is on a secondary basis (US34).

The International Frequency Allocations differ from the U.S., in that these allocations allow fixed, fixed-satellite, mobile and space research to operate in the portions of these bands. A summary of the International Provisions is tabulated for each frequency band below:

a. 5.47–5.65 GHz:

1. Maritime radionavigation is allocated on a primary basis worldwide.

2. Radiolocation is allocated as a secondary service worldwide.

Table 5.1 Frequency Allocation for the 5.6-5.925 GHz Band

INTERNATIONAL			UNITED STATES				
Region 1 MHz	Region 2 MHz	Region 3 MHz	Band MHz 1	National Provisions 2	Government Allocation 3	Non-Government Allocation 4	Remarks 5
5470–5650			5470–5600	G, NG US50 US65	MARITIME RADIONAVIGATION Radiolocation G56	MARITIME RADIONAVIGATION Radiolocation	
MARITIME RADIONAVIGATION Radiolocation 386 387			5600–5650	G, NG 387 US51 US65	MARITIME RADIONAVIGATION METEOROLOGICAL AIDS Radiolocation G56	MARITIME RADIONAVIGATION METEOROLOGICAL AIDS Radiolocation	
5650–5670			5650–5925	G, NG 391 US34 US100 (ISM 5800 ± 75 MHz)	RADIOLOCATION	Amateur	
RADIOLOCATION Amateur 383 389							
5670–5725							
RADIOLOCATION Amateur Space Research (Deep Space) 388 389 389A							
5725–5850 FIXED-SATELLITE (Earth-to-Space) RADIOLOCATION Amateur 354 388 390 391 391A	5725–5850 RADIOLOCATION Amateur 389 391 391A				G2		
5850–5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 391	5850–5925 RADIOLOCATION Amateur 391	5850–5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Radiolocation 391					

FOOTNOTES

Government (G) Footnotes

(These footnotes, each consisting of the letter "G" followed by one or more digits, denote stipulations applicable only to the Government.)

G2 In the bands 216-225, 420-450, 1300-1400, 2300-2450, 2700-2900, 5650-5925 and 9000-9200 MHz, the Government radiolocation is limited to the military services.

G56 Government radiolocation in the bands 1215-1300, 2900-3100, 5350-5650 and 9300-9500 MHz is primarily for the military services; however, limited secondary use is permitted by other Government agencies in support of experimentation and research programs. In addition, limited secondary use is permitted for survey operations in the band 2900-3100 MHz.

US Footnotes

(These footnotes, each consisting of the letters US followed by one or more digits, denote stipularions applicable to both Government and non-Coverment stations.)

US34 The only non-Government service permitted in the bands 220-225 MHz, 1215-1300 MHz, 2300-2450 MHz and 5650-5925 MHz is the amateur service. The amateur service shall not cause harmful interference to the radiolocation service.

US50 The non-Government radiolocation service may be authorized in the band 5470-5600 MHz on the condition that it does not cause harmful interference to the maritime radionavigation service or to the Government radiolocation service.

US51 In the bands 5600-5650 MHz and 9300-9500 MHz, the non-Government radiolocation service shall not cause harmful interference to the Government radiolocation service.

US65 The use of the band 5460-5650 MHz by the maritime radionavigation service is limited to shipborne radars.

US100 In the Additional Protocol to the Final Acts of the Space EARC, Geneva, 1963, a declaration on behalf of the USA states that the USA cannot accept any obligation to observe the exception claimed by Cuba in those footnotes to the Table of Frequency Allocations which were adopted by the EARC and which specifically named Cuba.

International Footnotes

(These footnotes come from the Radio Regulations, Geneva, 1959, the Final Acts of the Space EARC, Geneva, 1963, the Final Acts of the Maritime Mobile WARC, Geneva, 1967, or the Final Acts of the Space WARC, Geneva, 1971.)

354 In Albania, Bulgaria, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the bands 1 660-1 690 MHz, 3 165-3 195 MHz, 4 800-4 810 MHz, 5 800-5 815 MHz and 8 680-8 700 MHz are also used for radio astronomy observations.

386 In Albania, Bulgaria, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the band 5 470-5 650 MHz is also allocated to the aeronautical radionavigation service.

387 Between 5 600-5 650 MHz, ground-based radars used for meteorological purposes are authorized to operate on the basis of equality with stations of the maritime radionavigation service.

388 In the F. R. of Germany, the band 5 650-5 775 MHz is allocated to the amateur service and the band 5 775-5 850 MHz is allocated to the fixed service.

389 In China, India, Indonesia, Japan and Pakistan the band 5 650-5 850 MHz is also allocated to the fixed and mobile services.

389A In Bulgaria, Cuba, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the space research service is a primary service in the band 5 670-5 725 MHz.

390 In Albania, Bulgaria, Hungary, Poland, Roumania, Czechoslovakia and the U.S.S.R., the band 5 800-5 850 MHz is allocated to the fixed, mobile and fixed-satellite services.

391 The frequency 5 800 MHz is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of ± 75 MHz of that frequency. Radiocommunication services operating within those limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment.

391A Radio astronomy observations are being carried out in the band 5 750-5 770 MHz and 36.458-36.488 GHz in a number of countries under national arrangements. Administrations are urged to take all practicable steps to protect radio astronomy observations in these bands from harmful interference.

3. The aeronautical radionavigation service is also allocated in Soviet Bloc countries (386).

4. In the band 5.6–5.65 GHz, the meteorological aids service is allocated on a co-equal basis with maritime radionavigation (387).

b. 5.65–5.725 GHz:

1. The radiolocation service is allocated on a primary basis worldwide.

2. The amateur service is allocated on a secondary basis worldwide.

3. The fixed and mobile services are also allocated in this band (389).

4. The space research service is allocated in the band 5.67–5.725 GHz, on a primary basis, in some Soviet Bloc countries (389A).

c. 5.725–5.85 GHz:

1. The radiolocation service is allocated on a primary basis worldwide.

2. The fixed-satellite service is allocated on a primary basis in Region 1.

3. The amateur service is allocated on a secondary basis worldwide.

4. The fixed and mobile services are also allocated in this band (388, 389, 390).

5. The frequency 5.8 GHz is designated for ISM purposes worldwide (391).

6. Radio astronomy observations are being carried out in a number of countries (354, 391A) in the bands 5.75–5.77 GHz and 5.8–5.815 GHz.

d. 5.85–5.925 GHz:

1. The radiolocation service is allocated on a primary basis in Region 2 and on a secondary basis in Region 3.

2. The fixed, mobile and fixed-satellite services are allocated on a primary basis in Regions 1 and 3.

3. The amateur service is allocated on a secondary basis in Region 2.

5.2 *Proposed Changes to the Present Allocation.* The 3rd NOI contained discussions proposing the addition of three services and an expansion of ISM equipment within the bands 5.625–5.925 GHz. A summary of these proposed allocations follows:

1. Addition of the Amateur Satellite service on a secondary basis. The frequency limits of allocation would be 5.65–5.67 GHz. This allocation was also proposed in the Table of Allocations.

2. Spectrum for use by the common carrier fixed service in the bands of 5.650–5.925 GHz was requested.

3. The request to obtain spectrum in the 5.625–5.925 GHz bands for use by the commercial fixed satellite service was discussed.

4. Footnote 357A has been proposed in the Table of Allocations to provide for wireless transmission of power. This footnote states:

"The frequencies 2450 MHz and 5800 MHz are designated for the wireless transmission of power. Emissions must be confined within ±50 MHz of the frequencies designated. This electrical energy transfer may be effected from space-to-earth, space-to-space, or point-to-point on the earth."

5.3 *Military Systems Operating in the Band.* The military has several developmental and operational radar systems with equipment capable of operating in the bands 5.6–5.925 GHz. Classified information concerning these systems has been made available to the FCC staff. A brief description of some of the military systems follows:

Air Force. The Air Force systems include the following systems.

The All Weather System (AWS) is an atmospheric environmental program that is a continuing acquisition and procurement program to improve and modernize the air weather service in support of military operations and command and control systems. The system is presently operational in the US.

Electronic warfare simulators are used in all types of aircraft. Bomb directed controls are also employed. This system is presently operational.

A part of the Air Defense Command and Control Network is a system which provides for surveillance, identification, command and control and interception of hostile airborne targets. With the phase-out of this system, a Joint Surveillance System (JSS) between the FAA, air Defense Command and Canada will be implemented to perform the U.S. surveillance and peacetime control missions of detection, identification and interception. The JSS will provide the means for rapid transition of the command, control and surveillance functions.

Navy. Navy systems include the Tarter/Terrier/Talos system. This system is a surface-to-air and surface-to-surface missile system. The primary role of this system is fleet air defense with a secondary role of anti-missile and anti-ship defense. These systems include search, acquisition, tracking, and navigation functions and are currently operational systems.

5.4 *Military Equipment Summary.* Information on military present and planned worldwide spectrum utilization of the 5.625–5.925 GHz bands is summarized in this section.

Air Force. A list of the Communictions-Electronic (C-E) equipment indicates that the Air Force has about 25 types of nomenclatured equipments capable of operating in this band. Approximately 75% of these nomenclatured equipments tune over the entire frequency band (5.60–5.925 GHz). These equipments are principally used as fixed and mobile ground radars and as pilotless carrier transponders or radars. Information currently available indicates that the nomenclatured equipment represent total equipment quantities in excess of 200 units.

Army. Information of Army C–E equipments indicates about 10 types of nomenclatured equipments are either operating or planned for operation in this band. Some of these nomenclatured equipments will operate in the band below 5.75 GHz. The remainder may operate within the entire band (5.625–5.925 GHz). The operational availability extends to 1990 for a majority of the nomenclatured equipments.

The Army has indicated that the loss of the 5825–5925 MHz band for use by radars at military test ranges would severely reduce the capability of those ranges to support the weapons development programs. Such delays of the weapons development programs across the U.S. will have a serious effect upon the Defense Readiness posture.

Navy. The Navy has about 10 types of nomenclatured equipments, representing an equipment quantity of about 600, operating in the 5.625–5.925 GHz band. All of these

equipments are shipboard radars and are capable of operating in the 5.625–5.700 GHz frequency range. Some of the radars use frequency agility techniques. Approximately 100 radars are capable of operating above 5.85 GHz. It is projected that equipment quantities will increase by approximately 26% by 1990.

5.5 Government Usage of Bands Within the U.S. There are over 600 frequency assignments in the 5.6–5.925 GHz band. Approximately 83% of the total assignments are military (DOD) and of these, about 75% are used as land and mobile radiolocation radars and weather radars. The remaining 25% of the assignments are used as radionavigation, mobile and experimental stations.

The eight Government agencies with frequency assignments in this band and the approximate percentage for each of these agencies are:

Agency:	*Percent of total*
Air Force	55
Army	15
Commerce	11
ERDA	2
Interior	1
Navy	13
NASA	2
NS	>1

A frequency assignment distribution for four sub-bands of the overall band (5.6–5.925) is given in table 5.2. The total for the 4 sub-bands cannot be equated to the total, since approximately 70% of these assignments tune across multiple sub-bands, i.e., in the 5.825–5.925, only 12 assignments are fixed tuned.

Table 5.3 Frequency Assignment Distribution for the 5.6–5.925 GHz Bands

AGENCY	FREQUENCY SUB-BAND, GHz			
	5.6–5.65	5.65–5.725	5.725–5.825	5.825–5.925
AF	184	139	141	83
AR	35	47	56	24
C	74	0	0	0
ERDA	1	10	7	1
I	3	0	0	0
N	42	40	54	32
NS	0	0	0	1
NASA	4	6	5	4
Total	343	242	263	145

A summary of the usage within the U.S. for each Governmental agency follows:

Air Force. The Air Force uses this band principally for radiolocation and meteorological radar functions. The remaining assignments are used for radionavigation, telecommand land and experimental stations.

The radiolocation land stations are located throughout the U.S. and its possessions. Most of these stations are used for various air defense operations and missile testing.

The radiolocation mobile stations are deployed throughout the 50 states and in the Pacific. Primarily, the equipment is used as: aircraft radar transponders, for operational and pre-flight testing missiles, for tracking or reentry vehicles or as command/telemetry transceivers.

Many of the radiolocation stations are capable of operating in all of the sub-bands (5.6–5.925 GHz).

The weather radars are located in the continental U.S. and are used in the Weather Forecasting and Observing System. The weather radars have the capability of tuning from 5.45 to 5.65 GHz.

Army. The Army's principal use of this band is for radiolocation and radionavigation. The remaining assignments are used for experimental purposes. Some of these experimental assignments are used for missile system tests.

Most of the radiolocation land stations are located in Alabama, Arizona, California, New Mexico and Utah. The equipment is used for range safety and precision tracking in support of airborne testing, missile testing and tactical and/or training operations. It should be noted that as a result of operational constraints, the precision tracking radars and associated transponders must operate in the upper portions of the overall band.

The radiolocation mobile equipment is deployed in about six states. The equipments are transponders used during missile and airborne tests.

The radionavigation, surveillance and mobile stations employ airborne transponders for operation of a test range radionavigation system.

Commerce. Commerce uses the 5.6–5.65 GHz frequency sub-band for operation of weather radars (meteorological aids service) and for radiolocation purposes.

The weather radars are located throughout the U.S. and are capable of operating in the sub-band 5.6–5.65 GHz. Currently, there are 71 assignments for Commerce weather radars. These assignments include the future equipments as well as the present. The equipment growth can be approximated by assuming a linear growth of 20% per year between 1975 through 1980. Therefore, the estimate of the number of radars operating by the beginning of 1977 is 28 stations. The radars, the WSR–74C, are used by the National Weather Service as part of the Weather Station Radar network. The overall investment cost by Commerce for this Network is in excess of 24 million dollars.

The three radiolocation stations are located in Colorado and Florida and are used to track weather balloons and obtain convection current information.

Energy Research and Development Administration (ERDA). ERDA uses this band for the radiolocation service. There is one radiolocation land station located in Nevada. This station is a portable tracking radar that is capable of operating between 5.4 to 5.9 GHz. ERDA also uses radiolocation mobile stations which are deployed in California, Hawaii, Johnston Islands, Nevada, New Mexico and Virginia. These stations are air-deployed transceivers that operate in the two sub-bands between 5.625–5.825 GHz.

Interior. Interior has three assignments in the sub-band 5.6–5.65 GHz. Two of the assignments are radiolocation land stations used to gather weather information. One of these stations is portable that may be used anywhere in the U.S., and the second is located in California. The third assignment is a weather radar used for storm detection in Alaska.

Navy. The Navy's principal use of this band is for radiolocation purposes with approximately 30% of the assignments used as weather radars or as experimental stations.

The majority of the radiolocation assignments are radiolocation land stations. These stations are located in California, Florida, Hawaii, Louisiana, Marvland, New Jersey, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, Washington, Puerto Rico and Johnston Islands. Certain radiolocation assignments are used as radiolocation mobile stations. A limited number of assignments are "U.S. and Possessions" assignments with large numbers fields. These assignments represent the shipboard tunable radars operating in this band.

NASA. NASA uses this band for radiolocation land stations, radiolocation mobile stations, and experimental stations.

The radiolocation land stations are located in California, Nevada and Virginia and are probably used for instrumentation and test purposes.

The radiolocation mobile stations are airborne transponders located in Virginia.

Presently, NASA is studying the feasibility of using the 2.45 and 5.8 GHz band (see proposed international footnote 357A) for wireless transmission of power (WTP). The WTP system is in the conceptual stage. Presently, the 2.45 GHz ISM allocation is receiving the most consideration; however, footnote 357A would also provide for operation at 5.8 GHz.

Section 6.—EMC Considerations

6.1 *Introduction.* This section considers the EMC of non-Government proposed fixed and fixed satellite services and Government existing and proposed services operating in the bands 3.3–3.7 GHz, 4.4–4.9 GHz and 5.625–5.925 GHz. The non-Government and military have performed previous work in this area; however, there are many potential interactions not addressed in these analyses.

The non-Government Fixed Satellite Advisory Committee has investigated the following interactions.

(a) Shipboard radars and fixed satellite in the bands 3.4–3.7 GHz.

(b) Troposcatter system and fixed satellite in the band 4.4–4.9 GHz.

(c) Radiolocation and fixed satellite.

Additional non-Government analysis of radiolocation was sharing with the fixed satellite service in the 3.4–3.7 GHz bands was submitted to a GWARC Ad Hoc committee in January 1977 (GRC 798–III). It is assumed that GRC–798–III supersedes all applicable analysis previously made by the Fixed Satellite Advisory Committee.

The Navy is also investigating the compatability between the proposed fixed satellite and fixed services and Navy radars operating in the bands 3.3–3.7 GHz and 5.625–5.925 GHz. The Navy study is a Phase I (preliminary) study currently in the review stage. Based upon the initial results of the Phase I report, sharing between the fixed satellite and fixed services and the radiolocation service may not be possible without restrictions. Phase II (more detailed) sharing analyses efforts have been initiated by the Navy.

Previous studies by the non-Government and the Navy have been used wherever possible. In the cases where previous analysis information was not available, preliminary additional Federal Government sharing analyses were made. These cases and the associated frequency bands are:

(a) 3.3–3.7 GHz:

1. Aeronautical radionavigation (ASR's) and fixed satellite.
2. Airborne radars and fixed satellite.
3. Airborne radars and fixed.

(b) 4.4–4.9 GHz.

1. Mobile stations that are air deployed, and fixed satellite.
2. Radio astronomy and fixed satellite.

(c) 5.625–5.925 GHz:

1. Weather radars and fixed satellite.
2. Wireless transmission of power and fixed satellite.

Although the additional Government analyses are preliminary and are not all inclusive, these analyses provide insight that can be used for preliminary evaluation of the compatibility of various services. Due to the development activity in the frequency bands being considered, further analysis; particularly of military equipments may be appropriate.

6.2 *Analysis Parameters.* All of the analysis discussed within this report are based upon achievement of a specific interference to noise power ratio criteria.

Generally, the non-Government analyses relied upon existing CCIR reports to evaluate the compatibility between services. Normally, an overall interference probability criteria of 0.01 percent was used. Coordination distances between ground based systems were based upon C.C.I.R. report 382.2. This report has previously been used to establish coordination area requirements between earth stations and terrestrial radiocommunications services. In addition to determination of coordination distance by use of great circle propagation mechanisms, a rain scatter propagation model is also used. Based upon report 382–2, the propagation model requiring the greatest coordination distance is the mode to be taken into account.

The Phase I Navy and additional Government analyses are based upon a median (50%) probability criteria. The Federal Government analyses may be divided into two categories:

(a) Determination of a coordination distance between ground and/or air deployed systems.

(b) Whether or not a given INR criteria is exceeded for cases involving satellite interactions.

The coordination distance developed by the Federal Government analyses where based upon an automated smooth earth propagation model. This model provides the long-term median value of propagation loss and includes the combined effects of diffraction and troposcatter. This model does not determine the coordination distance associated with rain scatter or other low probability phenomenon, which may exceed the distanuce calculated by the smooth earth model.

Development of Coordination Distances. The median value of propagation loss was calculated in accordance with the following equation:

$$L = P_T + G_T + G_R - KTB - INR + DC - BW \quad (6.1)$$

where

P_T = peak output power in dBw.

G_T = Transmitter antenna gain in the direction of the receiver in dBi.

G_R = receiver antenna gain in the direction of the transmitter in dBi.

KTB = receiver noise level, Boltzmann's constant (K) times effective system noise temperature (T) times receiver bandwidth, BW_R in dBw.

INR = interference to noise power ratio, dB.

DC = duty cycle of interference emission in dB.

BW = ratio of the receiver 3-dB filter bandwidth BW_R and the 3-dB emission bandwidth BW_T of the interferer in dB.

$$BW = 10 \log \frac{BW_T}{BW_R}, \; BW_T > BW_R$$

$$BW = 0, \; BW_T \leq BW_R$$

The coordination distance was then established by use of the smooth earth propagation model.

Satellite Interactions. The satellite is stationary, thus interactions between the satellite and other services are evaluated by:

$$KNR = I - KTB \quad (6.6)$$

Where

INR and KTB are as previously defined. I is the interference receive power in a reference bandwidth, dBw

A test of equality can then be made to determine if the INR ratio exceeds the criteria.

Equipment Characteristics. The equipment characteristics used for the additional Federal Government analyses are given in table 6.1. The characteristics of the Government equipments (item No. 1 through 4) were obtained from C–E or assignment record information. The characteristics of the wireless transmisisons of power (WTP) system (item No. 5) was provided via telecom. with NASA representatives. The fixed microwave equipment (Farinon SS4000W) characteristics were provided by a brochure. The earth station characteristics were obtained by using measured characteristics of an INTELSAT ground station. The satellite receive characteristics were extracted from the HS333 Canadian domestic satellite characteristics.

The INR criteria used in this report were obtained by using the values assumed in the non-Government analyses, Navy analysis and other previous Government analysis. The INR values used were:

(a) 0 dB for all radars.

(b) −10 dB [1] for fixed and fixed satellite services.

(c) −5 dB for mobile (air deployed) services.

[1] For the cases where pulsed systems are the interferer, an average interference power criteria was used. The criteria will not be valid for some conditions involving high data rate digital reception.

TABLE 6.1

Equipment Characteristics

ITEM	NOMENCLATURE	TRANSMIT POWER, dBw	PRF, PPS	PULSE WIDTH, μsec	3 dB EMISSION BANDWIDTH, MHz	ANTENNA MB	ANTENNA GAIN SL	RCVR NOISE FIGURE, dB OR (TEMPERATURE), °K	3 dB IF BANDWIDTH, MHz	AVERAGE ANTENNA HEIGHT ASSUMED, FT
1	ASR[1]	50	1000	0.6	1.8	32	10[2]	5 dB	2.3	50
2	Airborne Rdr	33	3000	0.25	4.0	3	0	27 dB	5.0	30,000
3	Airborne System-Classified	20	NA	NA	5.0	3	0	30 dB	6.5	60,000
4	WSR-74C	54	266	3	0.5	40	NOT REQ.	NOT REQ.	NOT REQ.	50
5	WTF-NASA PROPOSED SYSTEM	100	NA	NA	UNKNOWN BASICALLY CW	87	NOTE 3	NOT REQ.	NOT REQ.	SYNCHRONOUS ORBIT
6	FARINON MICROWAVE (SS 4000W)	7	NA	NA	20.0	38	-10	9 dB	20.0	250
7	SATELLITE EARTH STATION	NOT REQ.	NA	NA	NOT REQ.	59	NOTE 4	(80 °K)	1 to 36 ASSUMED	50
8	SATELLITE	NOTE 5	NA	NA	NOTE 5	18	0	8 dB	1 to 36 ASSUMED	SYNCHRONOUS ORBIT

NOTES: 1. These characteristics were extrapolated from ASR 8 and existing FAA data.

2. The ASR antenna pattern will be a modified $\cos^2$ pattern. Gain of 32 dBi @ 5° and 10 dB at 0° and 30° elevation was assumed.

3. An extremely large array is used in this system. Gain of 10 dBi was assumed for 10 degrees off-axis and -10 dBi for 90 degrees off-axis.

4. Off-axis gain levels were calculated by using CCIR Report 391-2.

5. Power flux density limits were used for the calculation.

Satellite Parameters. The Radio Regulations specifies the maximum allowable power flux density (PFD) at the earth's surface produced by the fixed-satellite downlink. In the bands between 3.4–7.75 GHz, RR470NM Spa 2 states: "The power flux density at the Earth's surface produced by emissions from a space station or reflected from a passive satellite for all conditions and for all methods of modulation shall not exceed the following values:"

$152+\frac{\delta-5}{2}$ dBW/m² in any 4 kHz band for angles of arrival δ (in degrees) between 5 and 25 degrees above the horizontal plane;

142 dBW/m² in any 4 kHz band for angles of arrival between 25 and 90 degrees above the horizontal plane.

These limits relate to the power flux density which would be obtained under assumed free-space propagation conditions.

Satellite system design is governed by an overall performance criteria, i.e. achievement of a particular signal-to-noise ratio for the entire link. In some cases, like FM TV video transmissions where energy dispersal waveforms are employed, the limits given in RR470NM might be experienced. It is realized that the maximum *PFD* limit may be reduced by more than 20 dB for some links; however, the maximum level has been used for the initial OT analysis.

The conversion from *PFD* to interference power in a receive bandwidth may be expressed in logmetric form as:

$$I=PFD(\delta)+G_R+10\log\left(\frac{\lambda 2}{4\pi}\right)+10\log\left(\frac{BW_R}{4\text{ kHz}}\right) \quad (6.3)$$

where

I=maximum power in BW_R, dBW.
G_R=receive antenna gain, dBi.
λ=wavelength, meters.

6.3 EMC Analysis of the 3.3–3.7 GHz Bands. The results of previous sharing studies considering the EMC between radiolocation and the fixed satellite and fixed services are discussed in this section. These results are followed by additional Federal Government analyses of the following interactions:

(a) Aeronautical radionavigation (ASR's) and fixed satellite,

(b) Airborne Radars and fixed satellite stations,

(c) Airborne Radars and fixed stations (Farinon SS4000W).

EMC of Radiolocation and Fixed Satellite. The initial analysis made by the Fixed Satellite Advisory Committee concluded that sharing between the radiolocation and fixed satellite services is possible if the satellite PFD is limited to −122 dBw/m² in 2.5 MHz.

On January 28, 1977, a new document, GRC–798–III, addressing this subject was introduced to members of the Ad Hoc committee. The conclusions of this analysis were:

a. "The earth station coordination aspects do not appear to involve greater difficulties than that associated with the fixed service."

b. "It would appear that the present PFD limit would be tolerable in that actual interference cases would involve a maximum penalty of 1% on the radar coverage capability."

A brief discussion of these general conclusions is required in order to fully understand the impact of these statements.

The coordination distance required between radiolocation stations and satellite earth stations are approximately 100 miles for normal propagation modes. However, consideration of rain scatter coordination distance extends this required separation to about 280 miles.

Limitation of the coverage area by 1 percent would have little impact upon radars used for training. However, if radars are used for air defense purposes, the restriction of 1 percent would weaken the overall function of these systems. An alternative discussed in GRC 798–III would be to restrict the maximum PRD limit to a level of −165 to 173 dBW/m²/4KHz which would result in an overall INR of 0 dB.

EMC of Radiolocation (Shipboard Radars and Fixed). The proposed fixed stations would be used to provide line-of-sight communications for common carrier users (inferred by 3rd NOI). Currently, the fixed service is proposed on a secondary basis in the sub-band 3.3–3.4 GHz. Under a secondary allocation, the fixed service must accept interference from the radiolocation service. Normally, common carrier users desire highly reliable links. Achievement of this goal may require that the proposed fixed service be allocated on a primary basis. Consequently, sharing between radiolocation and the fixed services was addressed within this report.

The calculations provided by the Phase I

Navy study generally indicates that distance separation between the radiolocation (shipboard radars) and fixed stations of less than 210 miles will preclude interference in the 3.3–3.4 GHz sub-band. This assumes worst case mainbeam-to-mainbeam coupling. Under less extreme conditions, mainbeam-to-sidelobe, a distance separation of less than 85 miles is required.

EMC of Aeronautical Radionavigation and Fixed Satellite. The FAA ASR is planned to be used by aeronautical radionavigation service, i.e., is considered as a safety-of-life service.

Satellite Interference into ASR. The interference-to-noise power ratio may be calculated by using equation 6.2 and 6.3 in conjunction with the ASR characteristics given in table 6.2. The INR in 2.3 MHz for the mainbeam coupling case is about 12 dB. The elevation angle within CONUS for mainbeam coupling to the satellite will vary as a function of ground station locations and satellite orbital position. The minimum angle is about 5 degrees and the maximum angle is about 55 degrees. Assuming that the existing ASR–8 antenna characteristics will be similar to the proposed ASR, the approximate antenna characteristics are:

3 dB azimuth beamwidth of 1.35 degrees
one antenna rotation in 4.8 seconds.

As the ASR sweeps in azimuth, the receiver may see as many as 35 interfering stationary sources (assuming orbital spacing of 3°) with various levels of interference. Conceivably, all of the interference levels could be above the noise if maximum PFD limits are used. The 3 dB beamwidth dwell time is $\frac{(1.35)}{360}$ 4.8 seconds or about 18 milliseconds.

Thus, interference may be experienced for about 630 pulses/scan.

The only acceptable alternative to the FAA would be to lower the PFD limit for this band. Generally, a reduction of 15 dB would probably be ample. However, establishment of an INR specification level requires further analysis and coordination with the FAA.

ASR Interference into Satellite Earth Station. The loss required to preclude interference between the earth station and ASR (eq. 6.1) by using the parameters provided in table 6.1 are:

$$L=(174.7+G_R+G_T)\ dB$$

assuming an ASR tilt angle of 4° and an earth station elevation angle of 5°, the required loss is

$$L_{\simeq}(174.7+10+14.5)\ dB=199.2\ dB$$

Based upon a smooth earth propagation prediction model, the required distance separation is 60 miles.

EMC of Airborne Radar and Fixed Satellite. The airborne radars are used for navigation station keeping on cargo-type aircraft. Due to the large number of these equipments, it is assumed that the airborne radars may be used in the U.S. during flight between bases. Also, there are new airborne radars being developed for use in portions of the band.

Satellite Interference into the Airborne Radar. The airborne radars have a very high noise figure (over 20 dB above the ASR) and a low antenna gain; therefore, it is evident that the satellite will not interfere with this system.

The Airborne Radar Interference into Satellite Earth Stations. The loss required to preclude interference, as calculated by equation 6.1, and using the equipment parameters defined in table 6–1 is:

$$L=155.4+G_R+G_T$$

Assuming 5 degrees off axis for the earth station and mainbeam coupling from the airborne radar (3 dBi gain)

$$L_{\simeq}173\ dbB$$

The aircraft may fly at an altitude of 30,000 feet. Consequently, the required slant range is 250 miles. This distance is in the diffraction region; thus, small increases in loss will have negligible effects upon the distance.

EMC of Airborne Radars and Fixed. Airborne radars may fly at an altitude of 30,000 feet or greater. Effectively, this will increase the line-of-sight distance to about 250 miles. Consequently, the additional loss advantage of diffraction, as experienced by ground based equipments, is not realized.

Airborne Radar Interference into Fixed Stations. The Farinon SS4000W microwave equipment is a 600 channel system and has been assumed to be typical of fixed service equipment proposed for operation in the 3.3–3.4 GHz sub-band. The medium propagation loss as calculated by parameters given in table 6.1 and equation 6.1 is:

$$L=134.4+G_R+G_T\ in\ dB$$

The loss is 175.4 dB for mainbeam to mainbeam couping (low probability of occurrence), and the corresponding slant range is about 250 miles.

The loss is 127 dB for airborne mainbeam and fixed station sidelobe antenna coupling. The corresponding slant range is 10 miles.

Fixed Service (SS400W) Interference into the Airborne Radar. This calculation is not required since the constraining system is the fixed station. This is evident by the high noise figure given in table 6.1.

6.4 EMC Analysis of the 4.4–4.9 GHz Band. The results of the Fixed Satellite Advisory Committee have been summarized to portray the EMC between high powered fixed stations (troposcatter) and the proposed fixed satellite service. This summary is followed by a preliminary Federal Government analysis of airborne mobile stations, and the fixed satellite service. Also, the impact of satellite emission upon the radio astronomy is discussed.

EMC of Troposcatter Systems and Fixed Satellite. The Fixed Satellite Advisory Committee sharing analysis concluded that sharing between troposcatter systems and earth stations require large coordination distances (308 miles). This analysis concludes that sharing of fixed satellite and troposcatter systems should be able to be accommodated.

Troposcatter Interference into Earth Stations. The coordination distances developed by the advisory committee, assuming 10° horizontal angle, are:

(a) About 154 miles (250 Km) separation between the troposcatter system and earth station is required, based upon great circle propagation mechanisms for 0.01% of the time.

(b) About 308 miles, worst case, based upon rain scatter.

Satellite Interference into Troposcatter. The Fixed Satellite Committee calculations showed that the troposcatter antenna could not point closer than ±4 degrees of the satellite geostationary orbit without exceeding an INR criteria of −10 dB. This calculation assumes maximum PFD of −152 dBw/m²/4 Kz. If the PFD was reduced to −160 dBw/m², the troposcatter antenna may look up to ±2 degrees of the geostationary orbit and receive adequate protection. A PFD of −173 dBw/m²/4 KHz is required to achieve an INR of −10 dB.

EMC of Mobile (Airborne) System and Fixed Satellite. As of this date, interactions between airborne mobile systems and the proposed fixed satellite service in the 4.4–4.9 GHz band have not been investigated. As indicated in Section 4, there are several airborne systems capable of operating in the 4.4–4.9 GHz band.

Satellite Interference into Mobile Stations. The calculated value of the interference-to-noise ratio (eq. 6.2 and 6.3) shows the interference is 39 dB below the noise in a 6.5 MHz bandwidth. Therefore, it appears that this link is compatible.

Mobile Station Interference into Earth Stations. Some of the airborne systems are designed to fly at low altitudes; others at high altitudes. One of the high altitude systems was chosen for this analysis, thus, an altitude of 60,000 feet was used.

The loss, L, is:

$$L=172.6+G_R+G_T$$

if $G_R=3$ dB
$G_T=17$ dB (4 degrees off-axis)
$L=192.6$ dB

Based upon smooth earth prediction models, the slant range is 360 miles.

The required loss is about 163 dB for $G_T=0$ and $G_R=-10$. The corresponding distance for this condition is about 340 miles.

EMC of Radio Astronomy and Fixed Satellite. CCIR report 224.3 contains the power flux density for typical line measurements. The level of signal causing harmful interference is a PFD of −196 dBw/m²/4 KHz (isotropic antenna). Due to the sensitivity of these systems, it is apparent that the two services are not compatible. A portion of the satellite downlink spectrum could be "notched out" by employing multi-section filters. This approach would decrease the performance and increase the cost of satellite systems.

6.5 EMC Analysis of the 5.625–5.925 GHz bands. Previous EMC analyses between the radiolocation and proposed fixed satellite service have been made by the Fixed Satellite Advisory Committee and by the Navy. Summaries of these analyses are provided in this section. Also, sharing between the following services have also considered:

a. Weather radars and fixed satellite.
b. WTP and fixed satellite.

EMC of Radiolocation and Fixed Satellite. The Fixed Satellite Advisory Committee concluded that sharing between the radiolocation and fixed satellite (uplink) services is not feasible. This analysis found that the interference from a radiolocation device into the satellite is over 30 dB greater than the maximum permissible interference into the satellite.

The Phase I Navy study has also concluded that Navy radiolocation and the proposed fixed satellite service may be incompatible for operation in this band.

EMC of Weather Radars and Fixed Satellite. U.S. Department of Commerce/National Weather Service uses the 5.6–5.65 GMz band for operation of weather radars. Weather (WXD) radars are used to detect, locate, track and measure meteorological phenomena. In order to perform these functions, the coverage volume of Weather radars cannot be restricted. The INR (Eq 6.2) during periods of mainbeam coupling (assuming global coverage of satellite antenna) is about 20 dB. This exceeds the acceptable criteria of −10 dB by 30 dB; consequently, in-band sharing between these services is not feasible. The present allocation provides for 50 MHz of spectrum for operation of this service. If the WXD radar spectrum was reduced to 25 MHz (5.6–5.625 GHz) intra-system interference is anticipated.

WTP Interference to Satellite. The Proposed WTP system will require an extremely narrow beam width antenna (0.008 degrees)

in order to provide efficient transfer of energy. The conceptual system characteristics have been estimated as:

Transmit power—10 Giga Watts.
Type antenna—Phase Array.
Antenna Gain—87 dBi (approximate).
Modulation—non essentially CW.

The proposed system will be located on a geostationary satellite platform. Assuming a maximum transmit and receive total gain coupling (G_T+G_R) of −10 dBi, the amount of CW power at a satellite receiver spaced 10 degrees away is approximately −94 dBw.

The other extreme is a satellite spaced approximately 160 degrees away in synchronous orbit. Under these conditions, the total coupling gain will be higher or approximately 20 dBi (10 dBi+10 dBi) and the amount of CE power at the satellite is approximately −84 dBw.

For a 36 MHz channel, the satellite noise power is −121 dBw. Clearly, the WTP CW signal will cause interference to the fixed satellite.

JOINT STATEMENT OF CHAIRMAN RICHARD E. WILEY AND COMMISSIONER MARGITA E. WHITE

In Re: Fifth Notice of Inquiry in Docket 20271, Preparation for the 1979 World Administrative Radio Conference (WARC).

Dissenting only with respect to the majority's decision to limit future flexibility in the international arena in the 512–608 MHz and the 614–806 MHz portion of the spectrum.

We wholeheartedly agree with a great portion of the Commission's decision that provides for a flexible approach in establishing our recommendations for the 1979 WARC. However, the majority has not seen fit to extend flexibility to the 512–608 MHz and 614–806 MHz portions of the spectrum.

It must be empahsized that this proceeding is another step in the development of the U.S. position for the upcoming 1979 WARC and should reflect this country's best interests in international radio rules and regulations over the next twenty year time period. As a result of the inherent difficulties in accurately forecasting long-term future service by service spectrum demands, the theme of the preparatory effort to date in all areas, including allocation proposals, has been flexibility—flexibility to account for unpredictable changes in technology, economics, or national interest. We disagree that the information developed in the record at this stage of the proceeding is sufficient to warrant decisive and inflexible long-term allocation proposals in these bands. If the majority's decision today becomes the final U.S. position, it may make it impossible for a later Commission—faced with concrete facts and possible new technologies—to meet its responsibility under the Communications Act to "encourage the larger and more effective use of radio in the public interest."

It would seem that the Commission is making a decision that it need not make in 1977. This is an international proceeding, not a domestic rule making. Establishing the entire band as broadcasting and mobile internationally would not dictate or even suggest a change in our domestic allocations. (Indeed, the international VHF band is allocated to fixed, mobile and broadcasting services while our national allocations permits only television broadcasting in this band.)

Our dissent on this matter should not be construed in any way as a deviation from our joint commitment to fostering the fullest practical development of UHF television. We fully understand that the future course of UHF depends very fundamentally on the continued availability of ample spectrum space. It was for this reason that we supported initiation of the UHF Task Force to carefully study the future needs of UHF broadcasting and to develop a plan to preserve the spectrum required to meet those needs. This task is a complex one, and even preliminary results cannot be expected until the advanced stages of the proceeding. Without attempting to prejudge future domestic findings, the uncertainty at this point suggests that the best direction to follow internationally should be to preserve our fullest degree of flexibility.

We are encouraged by the fact that this is not the Commission's final recommendation but rather the Fifth Notice of Inquiry. Fortunately, the Commission will have additional opportunities to reconsider this point as the formal proceeding advances. We trust that the majority will approach future decisions on flexibility with an open mind. Those who feel that the majority decision today is incorrect are invited to provide the most accurate and comprehensive information possible in response to this Inquiry. They may have lost this battle, but perhaps not the WARC.

STATEMENT OF COMMISSIONER JOSEPH R. FOGARTY

In Re: Fifth Notice of Inquiry in Docket 20271, Preparation for the 1979 World Administrative Radio Conference (WARC).

CONCURRING IN PART; DISSENTING IN PART

While I concour in the bulk of the proposals adopted in this Fifth Notice of Inquiry, I dissent from the proposal of the Commission majority that the international allocation for the 470–890 MHz (UHF) band be made to conform with our existing domestic allocation, except for the 806–890 MHz band where Mobile Services are proposed to be primary and broadcasting services secondary. In my judgment, this proposal fails to recognize the imperative need for flexibility in meeting future domestic spectrum requirements. I think that this Notice should have set forth the following proposal for the 470–890 MHz band:

470–608 MHz Broadcasting/Mobile; 608–614 MHz Broadcasting/Mobile/Radio Astronomy; and 614–890 MHz Broadcasting/Mobile.

These are my reasons in support of both the dissent and the substitute proposal:

At the outset, it should be emphasized that the WARC meets to determine international allocation of the spectrum approximately once every 20 years. Thus, if sufficient flexibility is not incorporated into the international regulations prescribed by the 1979 WARC, U.S. telecommunications requirements may be restricted severely through the year 2000. On the other hand, adoption of principles favoring maximum flexibility at the 1979 WARC would permit and facilitate changes in the U.S. domestic allocation table which may be required to meet future spectrum needs for the expansion of existing services and the development of new communications systems.

A brief summary of the various radio service working group projections of future UHF spectrum requirements serves to illustrate the need for a U.S. position of maximum flexibility at the 1979 WARC. Broadcast interests have predicted that by the year 2000 a full complement of frequencies between 470 and 806 MHz will be required for commercial and noncommercial UHF television. The industry foresees public television station growth from the present 160 to more than 420 stations by the year 2000 and expects similar growth and spectrum saturation for commercial UHF-TV.

Beyond Commission decisions taken in Dockets 18261 and 18262, non-government non-television interests have predicted requirements, particularly for short range mobile communications, which, by the year 2000, could amount to approximately 268 MHz of the 470–806 MHz band. Based on projections from dramatic recent growth, particularly in the nation's major urbanized areas, and Commission licensing records, land mobile interests predict that by the end of this century there will be 2.1 million base station transmitters or 5.5 times the number existing in 1975. From these predictions, it is argued that in addition to the recent allocations in Dockets 18261 and 18262, between 102 and 174 MHz will be needed from the remaining UHF bands between 512 and 806 MHz.

International mobile service interests have also asserted the need for additional UHF spectrum to meet projected service requirements to the year 2000. The maritime community submits that by the end of the century an increased allocation of 15 to 18 MHz will be required if current traffic and demand trends continue. The aeronautical service has likewise advanced a projected need for 30 MHz of the UHF spectrum to allow for the development of new communications systems to keep pace with the introduction of more high capacity, high performance aircraft and related service requirements.

Government agencies, in addition, have expressed the need for access to 100 MHz in the 470–806 MHz band.

The only certain conclusion to be drawn from these industry working group projections is that there are significantly more demands for UHF spectrum than there is spectrum to allocate. Of course, each working group prediction tends to "maximize" its vision of future spectrum need to the virtual exclusion of competing service requirement projections. Due to the lack of sufficient information to confirm or modify these competing projections of spectrum need, it must be conceded that we are now in no position to formulate a rational plan for future UHF allocations which will enjoy any certainty of being in the overall national interest.

This conclusion is compelled not only by the paucity of reliable information as to future needs, but also by the rapidly changing nature of communications technologies applicable to the use of UHF frequencies. The Commission is currently engaged in an investigation of the future needs of television in the UHF band. Preliminary study suggests a great likelihood that technology improvements in TV receiver design will permit substantial reduction of the UHF-TV "taboos" thereby allowing many more TV stations to operate in the available spectrum than are currently permitted. With respect to the future needs of the land mobile community, there are complex, unresolved questions as to the actual load and usage of the spectrum currently allocated and whether advanced cellular and other technology may result in optimal utilization and conservation of spectrum. The several service working groups have not included in their reports any assessment of the impact of new technology on their projected spectrum needs. This deficiency further underscores the likelihood of miscalculation inherent in any attempt to establish future UHF spectrum retrum requirements now for the period contemplated by the 1979 WARC regulations.

Given this certainty of future uncertainty, reason and common sense clearly dictate that a proposal of maximum flexibility in UHF allocations would best serve this nation's overall telecommunications interests at the 1979 WARC. A majority of the Commission, however, takes a contrary position that it is imperative to freeze the existing domestic allocation internationally. I am frankly at a loss to understand why.

The majority's proposal is premised ostensibly on an overwhelming solicitude for the

future welfare of television in the UHF band. Indeed, one might reasonably infer that the majority has already weighed the complex and problematical projections of competing spectrum need for the remainder of this century and found all but those of UHF television lacking in credibility and consequence. The record of UHF television development to date, however, instills little confidence in the majority's clairvoyance. At present, there are 371 comercial and noncommercial UHF-TV stations on the air, less than one-third (30 percent) of the total 1269 current allocations. Although UHF-TV growth increased 300 percent between 1960 and 1975, UHF-TV total allocation usage has remained constant for the last five years. Whether this indicates a "plateau" of UHF-TV growth or merely a temporary lag is unclear at this point. While we all have high hopes for UHF television development in both the commercial and noncommercial sectors, a more convincing demonstration of actual future need is required, I think, before we reserve the lion's share of the 470-890 MHz band exclusively for UHF broadcasting.

Even if the majority's crystal ball assessment of UHF television needs to the end of the century were supported by reasonable arguments, the wisdom of the Commission's proposed WARC position would still be less than self-evident. If the only choice were between exclusive UHF allocations for television or non-television services, I could understand a Commission decision opting for TV broadcasting. The majority's decision, however, appears to assume a need for such exclusivity which I do not believe exists. Were the United States to adopt and gain international acceptance of a position calling for shared access to the 470-890 MHz band, such action would not reallocate a single frequency currently designated by the existing domestic table. Implementation by the United States of an international reallocation of UHF spectrum would be subject to a separate rule making in which all interested parties would have the opportunity to comment and the Commission would have the opportunity, also, to weigh competing spectrum needs. In advancing a WARC proposal which would freeze the current UHF domestic allocation, the Commission unnecessarily prejudges competing future needs and forecloses the opportunity to meet our mandate of promoting the larger and more effective use of radio in the public interest.

I want to answer one final argument which has been raised in support of the position of inflexibility taken by the majority. It has been argued that if a proposal calling for shared access throughout the 470-890 MHz band were adopted, it would have a "devastating psychological impact" upon the broadcast industry. This would occur, so the prophets contend, because any such allocation proposal would be seen by the industry as an "abandonment" of UHF-TV and by the other radio service industries as an "open invitation to raid" the UHF spectrum heretofore reserved exclusively for broadcasting.

As I have emphasized already, adoption of a flexibility approach and principle at the 1979 WARC would not reallocate any domestic UHF frequency away from television to non-television use. It would preordain neither an "abandonment" of UHF television nor an apocalyptic "raid" on UHF spectrum by the non-television services. Such an approach, however, would allow this Commission to ascertain and meet future spectrum needs as they become more clearly evident and put the interested industries to the proof in the implementing rulemakings for allocating a scarce spectrum resource. The paramount public interest in a rational, farsighted allocations policy demands no less, and competing industry interests are entitled to no more.

If this statement of purpose will not allay the "psychological" concerns of the broadcast industry, then I would seriously question the rationality of those concerns and not the wisdom of a policy favoring flexibility in future allocations. In this regard, while I recognize and remain committed to the Commission's policies for fostering the continued development of UHF television, I doubt that our mandate in this area includes assuming the role of psychiatrist for that industry. If, however, our mandate does require us to play that role, I think that the patient's mental health—and economic and technological well-being as well—would be better served by a confrontation with reality, rather than by reinforcing any delusions of grandeur or paranoia.

I hope that the majority's decision on this matter is not irreversible, and that a more objective analysis of the comments to be received in response to this Fifth Notice of Inquiry will lead to a modification of the Commission's proposal. To the extent that this initial proposal would limit use of the UHF band to the detriment of this Commission's ability to meet future U.S. telecommunications requirements, I dissent.

[FR Doc.77-15050 Filed 5-27-77;8:45 am]

federal register

TUESDAY, MAY 31, 1977

PART III



DEPARTMENT OF LABOR

Employment and Training Administration

■

COMPREHENSIVE EMPLOYMENT AND TRAINING ACT

Grants to Eligible Applicants

DEPARTMENT OF LABOR

Employment and Training Administration

GRANTS TO ELIGIBLE APPLICANTS

List of Allocations

AGENCY: Employment and Training Administration, Labor.

ACTION: Notice.

SUMMARY: This notice lists the allocations which have been made for Fiscal Year 1977 to eligible applicants under Titles II and VI of the Comprehensive Employment and Training Act. The Title II funds were allocated pursuant to 29 CFR 96.2. The Title VI funds were allocated pursuant to 29 CFR 99.2.

FOR FURTHER INFORMATION CONTACT:

Adolf Wansong, Chief, Division of Financial Management, Rm. 4010, 601 D Street NW., Washington, D.C. 20213, 202-376-6060.

SUPPLEMENTARY INFORMATION: This notice has been prepared under the direction and control of Albert J. Angebranndt, Administrator for Administration and Management, Employment and Training Administration.

U.S. DEPARTMENT OF LABOR - EMPLOYMENT AND TRAINING ADMINISTRATION
PUBLIC SERVICE JOBS PROGRAM - FY 1977
AS OF 03/30/77

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
BRIDGEPORT CONSORTIUM	11.9	1,201,127	3,620,021
HARTFORD CONSORTIUM	9.2	1,409,045	4,431,251
NEW HAVEN CONSORTIUM	10.7	886,614	3,104,906
STAMFORD CONSORTIUM	8.3	304,701	1,085,872
WATERBURY CITY	14.4	308,077	1,186,242
BALANCE OF CONNECTICUT	10.9	2,696,048	10,209,406
CONNECTICUT		6,805,812	23,631,698
PENOBSCOT/HANCOCK CSRT	9.6	263,488	952,744
CUMBERLAND COUNTY	8.0	679,638	1,707,726
BALANCE OF MAINE	11.6	1,124,048	4,354,564
KENNEBECK CO	8.3	132,293	470,498
MAINE		2,199,467	7,485,532
BOSTON CITY	13.9	1,671,799	6,590,461
EMHRDA CONSORTIUM	12.1	730,661	2,817,829
NEW BEDFORD CONSORTIUM	14.8	466,465	1,853,919
HAMPDEN COUNTY CONSORTIUM	13.2	1,093,966	4,278,524
WORCESTER CONSORTIUM	12.0	758,023	2,775,425
LOWELL CONSORTIUM	13.3	616,420	2,205,205
BROCKTON CONSORTIUM	12.8	156,591	1,777,339
BALANCE OF MASSACHUSETTS	11.3	7,224,603	27,537,093
MASSACHUSETTS		13,018,908	49,839,795
ROCKINGHAM/STRAFFORD CSRT	6.5	128,675	835,461
HILLSBOROUGH COUNTY	7.5	413,224	1,347,477
BALANCE OF NEW HAMPSHIRE	6.0	129,545	1,076,891
NEW HAMPSHIRE		671,444	3,259,829
PROVIDENCE CITY	16.0	597,126	2,429,004
BALANCE OF RHODE ISLAND	13.9	2,544,372	8,969,515
RHODE ISLAND		3,141,498	11,398,519
VERMONT STATEWIDE CSRT	10.4	972,366	3,388,300
VERMONT		972,366	3,388,300
REGION I		26,809,495	99,003,673

U.S. DEPARTMENT OF LABOR - EMPLOYMENT AND TRAINING ADMINISTRATION
PUBLIC SERVICE JOBS PROGRAM - FY 1977
AS OF 03/30/77

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
ATLANTIC COUNTY	14.5	676,502	2,001,755
BERGEN COUNTY	6.8	1,447,964	5,221,209
BURLINGTON COUNTY	12.7	870,068	2,864,647
BAL OF CAMDEN COUNTY	11.1	724,482	2,753,426
CAMDEN CITY	19.1	367,101	1,503,019
CUMBERLAND COUNTY	14.3	315,229	1,247,254
ELIZABETH CITY	12.2	256,095	988,698
BAL OF ESSEX COUNTY	9.9	969,050	3,599,488
GLOUCESTER COUNTY	12.9	396,880	1,547,433
HUDSON CO CRST	13.9	2,091,083	6,511,151
BAL OF MERCER COUNTY	6.7	142,783	729,905
MIDDLESEX COUNTY	10.7	1,163,359	4,390,110
MONMOUTH COUNTY	9.2	746,690	2,730,146
MORRIS COUNTY	8.5	528,597	1,896,071
NEWARK CITY	15.0	1,482,774	5,345,470
OCEAN COUNTY	12.9	624,074	2,220,184
BAL OF PASSAIC COUNTY	11.2	702,502	2,440,304
PATERSON CITY	17.8	438,070	1,781,032
SOMERSET COUNTY	7.1	241,559	836,295
TRENTON CITY	11.9	369,266	1,097,087
BAL OF UNION COUNTY	9.1	689,577	2,517,319
BALANCE OF NEW JERSEY	12.3	775,048	2,996,743
NEW JERSEY		16,099,153	57,225,744
ALBANY CONSORTIUM	7.1	321,137	1,262,080
BROOME COUNTY	8.5	305,831	1,094,180
BUFFALO CITY	14.9	2,149,229	6,141,823
CHAUTAUQUA CONSORTIUM	10.8	485,177	1,833,204
CHEMUNG COUNTY	9.8	161,188	597,565
DUTCHESS COUNTY	7.1	258,746	870,302
ERIE CONSORTIUM	9.6	1,017,733	3,753,857
ROCHESTER CITY	10.2	565,791	2,115,221
MONROE COUNTY	5.6	277,690	1,166,439
NASSAU CONSORTIUM	7.2	1,661,290	6,358,424
NIAGARA COUNTY	13.6	528,482	2,076,313
ONEIDA COUNTY	12.2	663,339	2,105,249
BAL OF ONONDAGA COUNTY	7.9	368,523	1,2[illegible]
ORANGE COUNTY	9.8	607,387	1,[illegible]9,225
OSWEGO COUNTY	15.8	257,363	1,031,684
RENSSELAER COUNTY	8.3	217,134	[illegible]
ROCKLAND COUNTY	7.5	220,004	933,089
ST. LAWRENCE COUNTY	15.3	257,440	1,020,329
SARATOGA COUNTY	5.0	260,483	777,774
SCHENECTADY COUNTY	7.9	218,593	766,869
STEUBEN COUNTY	10.3	216,182	706,657

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
SUFFOLK CONSORTIUM	9.0	1,618,911	5,680,780
SYRACUSE CITY	10.2	379,591	1,374,788
ULSTER COUNTY	12.5	311,272	1,207,129
WESTCHESTER CONSORTIUM	7.6	1,022,810	3,513,957
YONKERS CITY	9.0	346,084	1,256,440
BALANCE OF NEW YORK	12.2	3,021,940	13,467,072
NEW YORK CITY	11.0	15,800,434	54,418,114
NEW YORK		34,699,364	119,593,958
BAYAMON MUNICIPIO	14.3	546,748	1,567,210
CAGUAS MUNICIPIO	22.4	455,253	1,486,633
CAROLINA MUNICIPIO	10.1	169,143	590,949
MAYAGUEZ MUNICIPIO	16.1	596,702	1,436,453
PONCE MUNICIPIO	22.2	733,039	2,238,151
SAN JUAN CONSORTIUM	14.9	1,140,151	4,534,834
BALANCE OF PUERTO RICO	25.9	7,993,453	24,860,395
PUERTO RICO		11,636,489	36,714,625
VIRGIN ISLANDS		311,602	1,079,750
VIRGIN ISLANDS		311,602	1,079,750
REGION II		62,746,628	214,674,079

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
DELAWARE MANPOWER CSRT	8.4	970,569	3,036,086
WILMINGTON CITY	13.3	469,908	1,255,241
DELAWARE		1,440,477	4,291,327
DISTRICT OF COLUMBIA	6.1	2,296,337	5,714,235
DIST OF COLUMBIA		2,296,337	5,714,235
BALANCE OF MARYLAND	8.8	774,753	2,322,450
BALTIMORE CONSORTIUM	8.5	3,117,326	11,104,349
MONTGOMERY COUNTY	4.8	144,627	1,114,796
PRINCE GEORGES COUNTY	5.5	306,238	1,884,151
WESTERN MARYLAND CSRT	10.8	626,635	2,158,404
MARYLAND		4,967,579	18,644,110
LEHIGH VALLEY CONSORTIUM	6.8	1,029,309	3,226,752
LANCASTER CONSORTIUM	7.8	638,787	2,232,394
BUCKS COUNTY	8.3	625,579	2,231,257
CHESTER COUNTY	5.8	193,579	807,707
DELAWARE COUNTY	7.8	837,103	2,925,641
MONTGOMERY COUNTY	6.6	560,719	2,335,014
PHILADELPHIA CITY/COUNTY	10.4	5,261,318	15,308,161
BERKS COUNTY	7.5	431,821	1,459,549
BAL OF LACKAWANNA COUNTY	11.6	354,372	1,131,944
SCRANTON CITY	11.3	254,269	844,641
LUZERNE COUNTY	11.9	996,492	3,170,947
SCHUYLKILL CONSORTIUM	10.7	423,227	1,431,462
ERIE CITY	11.7	270,734	1,058,663
BAL OF ERIE COUNTY	11.7	273,539	1,040,693
BAL OF ALLEGHENY COUNTY	7.3	1,183,070	4,061,730
PITTSBURGH CITY	10.6	1,342,037	4,037,290
BEAVER COUNTY	7.0	258,151	808,316
WASHINGTON COUNTY	8.8	335,350	1,134,462
WESTMORELAND COUNTY	9.7	694,759	2,384,689
TRI-COUNTY CONSORTIUM	10.3	475,572	1,700,672
FAYETTE COUNTY	11.9	254,174	978,318
LAWRENCE COUNTY	11.5	194,540	743,451
MERCER COUNTY CONSORTIUM	10.9	646,520	2,446,648
SOUTHERN ALLEGANY CSRT	10.3	1,010,778	3,290,226
SUSQUEHANNA CONSORTIUM	6.9	436,225	1,735,252
YORK COUNTY	8.8	425,545	1,536,503
LYCOMING CONSORTIUM	13.3	336,477	1,318,249
FRANKLIN COUNTY	8.9	158,460	574,617
BALANCE OF PENNSYLVANIA	11.4	1,465,485	5,593,563

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
CENTRE COUNTY	8.1	139,327	469,155
NORTHUMBERLAND COUNTY	13.1	219,462	696,147
PENNSYLVANIA		22,300,910	72,946,515
PENINSULA CONSORTIUM	6.2	221,975	1,029,801
STAMA CONSORTIUM	6.6	614,205	2,476,779
RAMPS CONSORTIUM	5.8	196,461	922,088
HENRICO COUNTY CONSORTIUM	3.3	0	338,085
ROANOKE CONSORTIUM	6.6	274,143	1,016,517
ARLINGTON COUNTY	5.2	62,938	508,028
FAIRFAX COUNTY	5.1	169,737	1,074,178
PRINCE WILLIAM COUNTY	5.5	13,372	208,967
ALEXANDRIA CITY	4.8	0	214,087
BALANCE OF VIRGINIA	7.8	3,178,644	10,971,369
VIRGINIA		4,751,475	18,269,769
WEST VIRGINIA STATEWIDE	7.9	4,291,430	10,558,805
WEST VIRGINIA		4,291,430	10,558,805
REGION III		40,048,206	130,220,505

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
BALANCE OF ALABAMA	9.0	2,617,470	9,522,527
BIRMINGHAM CONSORTIUM	7.4	842,404	2,900,663
HUNTSVILLE CONSORTIUM	7.9	236,807	831,543
MOBILE CONSORTIUM	6.6	312,484	1,376,224
MONTGOMERY*CONSORTIUM	6.0	147,046	690,354
TUSCALOOSA COUNTY	6.4	60,863	346,427
ALABAMA		4,217,074	15,667,738
BALANCE OF FLORIDA	10.7	2,446,155	8,257,479
ALACHUA COUNTY	7.2	170,256	581,177
BREVARD COUNTY	14.8	959,876	2,749,470
BROWARD CONSORTIUM	15.1	2,006,340	7,994,244
MIAMI/DADE CONSORTIUM	12.6	3,488,156	13,545,704
ESCAMBIA COUNTY	7.9	304,615	983,677
HEARTLAND MANPOWERCSRT	12.0	1,057,737	3,187,797
LEE COUNTY	14.2	327,448	1,294,992
LEON/GADSEN CONSORTIUM	7.0	217,786	741,304
NE FLORIDA MANPOWER CSRT	7.1	609,593	2,345,756
ORANGE COUNTY/ORLANDO CSR	12.2	890,473	3,439,654
MANATEE COUNTY	11.8	223,508	859,186
PALM BEACH COUNTY	13.9	1,305,067	4,326,500
PASCO COUNTY	14.1	267,853	1,058,113
SEMINOLE COUNTY	12.4	290,753	1,175,532
ST. PETERSBURG CONSORTIUM	10.1	974,813	3,638,611
SARASOTA COUNTY	14.3	321,070	1,270,493
TAMPA CONSORTIUM	13.0	1,284,863	4,724,458
VOLUSIA COUNTY	11.7	368,831	1,415,011
FLORIDA		17,595,268	63,534,158
BALANCE OF GEORGIA	8.8	3,473,822	12,560,137
CSRA CONSORTIUM	8.9	604,431	1,799,417
ATLANTA CITY	11.8	2,235,548	6,342,625
CLAYTON COUNTY	7.9	156,039	548,610
COBB COUNTY	9.4	407,722	1,444,075
COLUMBUS AREA CONSORTIUM	7.3	299,674	816,506
BAL OF DEKALB COUNTY	6.8	516,493	1,720,888
FULTON COUNTY	8.1	259,284	916,492
MID GEORGIA CONSORTIUM	7.4	449,212	1,301,338
SAVANNAH/CHATHAM CSRT	7.1	249,077	758,509
GWINNETT COUNTY	6.3	79,922	279,292
GEORGIA		8,731,224	28,495,884
BLUE GRASS MANPOWER CSRT	4.8	131,179	743,955

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
LOUISVILLE/JEFFERSON CSRT	9.2	1,096,579	4,008,014
KENTON COUNTY	8.5	185,279	666,131
BALANCE OF KENTUCKY	7.6	2,781,270	8,460,205
EASTRN KENTUCKY RURAL*CEP	9.2	542,583	1,984,792
KENTUCKY		4,737,390	15,863,097
BALANCE OF MISSISSIPPI	8.5	3,523,754	11,522,881
JACKSON CONSORTIUM	5.7	244,671	942,490
MISSISSIPPI		3,768,425	12,465,371
BALANCE OF NORTH CAROLINA	8.4	4,851,244	17,325,927
ALAMANCE COUNTY	8.5	186,732	626,373
BUNCOMBE COUNTY	9.3	269,545	970,624
CUMBERLAND COUNTY	7.2	179,938	613,891
CHARLOTTE CITY	8.1	562,883	1,701,827
DURHAM CONSORTIUM	5.1	166,892	653,791
GASTON COUNTY	10.3	328,793	1,230,662
GREENSBORO CONSORTIUM	7.2	218,455	1,238,585
ONSLOW COUNTY	6.8	61,851	215,132
RALEIGH CONSORTIUM	7.4	365,074	1,321,909
BAL OF WAKE COUNTY	5.3	0	264,871
WINSTON SALEM CONSORTIUM	7.9	734,287	1,809,545
DAVIDSON COUNTY	10.0	232,582	796,584
NORTH CAROLINA		8,158,276	28,769,721
SOUTH CAROLINA STATEWIDE	8.8	7,342,672	19,891,247
SOUTH CAROLINA		7,342,672	19,891,247
BALANCE OF TENNESSEE	9.9	3,638,276	13,516,504
CHATTANOOGA CITY	7.1	202,253	597,170
MEMPHIS CONSORTIUM	8.0	1,124,540	3,797,603
BAL OF HAMILTON COUNTY	5.3	109,607	413,854
KNOXVILLE CONSORTIUM	6.1	229,044	902,835
NASHVILLE/DAVIDSONCNTY	8.5	757,296	2,714,138
SULLIVAN COUNTY	6.5	0	413,959
TENNESSEE		6,061,116	22,356,063
REGION IV		60,611,445	207,043,279

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
CHICAGO CITY	10.8	5,365,853	20,281,432
BAL OF COOK COUNTY	6.9	2,950,750	9,927,226
DUPAGE COUNTY	5.8	797,324	1,497,453
KANE CO CSRT	7.8	585,311	2,048,777
LAKE COUNTY	8.1	554,456	1,959,407
MACON COUNTY	9.9	215,865	802,331
MCHENRY COUNTY	7.8	173,945	609,289
ROCK ISLAND COUNTY	8.0	246,489	869,086
TAZEWELL COUNTY	5.5	50,950	296,288
LA SALLE COUNTY	7.7	170,609	540,819
ROCKFORD CONSORTIUM	10.8	533,707	2,016,700
CHAMPAIGN CONSORTIUM	5.6	118,307	545,830
WILL COUNTY CONSORTIUM	6.8	445,371	1,602,861
SANGAMON COUNTY CSRT	7.2	239,419	817,647
MADISON COUNTY CONSORTIUM	9.9	792,678	2,247,520
ST. CLAIR CONSORTIUM	8.5	454,455	1,430,352
PEORIA CONSORTIUM	6.2	134,029	638,828
EAST ST. LOUIS CITY	17.5	727,416	1,579,805
SHAWNEE CONSORTIUM	12.9	535,649	1,105,536
BALANCE OF ILLINOIS	8.4	2,505,042	8,950,014
MCLEAN COUNTY	5.0	0	208,996
ILLINOIS		17,696,435	59,979,197
GARY CITY	12.0	564,756	1,405,426
HAMMOND CITY	8.6	172,177	619,713
BAL OF LAKE COUNTY	7.9	351,501	1,235,013
ELKHART COUNTY	8.6	252,391	813,206
SOUTH BEND CITY	9.8	234,923	870,533
BAL OF ST. JOSEPH COUNTY	8.9	195,616	708,255
TIPPECANOE COUNTY	6.6	70,715	350,637
MADISON COUNTY	10.5	245,490	923,461
VIGO COUNTY	8.0	24,264	289,717
INDIANAPOLIS CITY	7.1	1,064,536	3,694,997
LA PORTE COUNTY	9.3	167,989	614,851
FT. WAYNE CONSORTIUM	10.6	846,439	3,202,081
DELAWARE CONSORTIUM	11.1	268,582	1,020,710
SOUTHWESTERN CONSORTIUM	7.2	494,696	1,671,611
BALANCE OF INDIANA	9.4	3,535,957	12,976,617
INDIANA		8,310,556	30,396,828
BALANCE OF MICHIGAN	14.5	3,275,403	12,983,606
FLINT/GENESSEE CONSORTIUM	14.3	1,550,962	6,105,995
LANSING CONSORTIUM	11.0	759,678	2,680,546
JACKSON CONSORTIUM	14.5	570,491	3,179,639

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KENT CONSORTIUM	11.7	1,937,297	5,802,038
MUSKEGON CONSORTIUM	14.7	421,471	1,674,061
DEARBORN CITY	8.8	177,019	639,257
DETROIT CITY	17.5	3,533,635	14,337,839
LIVONIA CITY	7.4	137,519	474,713
WARREN CITY	10.4	330,061	1,230,954
BAY COUNTY	12.4	305,589	1,038,758
BERRIEN COUNTY	14.3	417,245	1,650,358
CALHOUN COUNTY	11.7	414,094	1,314,180
KALAMAZOO COUNTY	9.2	340,358	1,242,162
BAL OF MACOMB COUNTY	11.6	1,123,546	3,859,805
MONROE COUNTY	11.2	214,098	814,750
OAKLAND COUNTY	12.4	2,880,645	9,307,553
OTTAWA COUNTY	9.9	336,069	1,022,749
SAGINAW COUNTY	10.2	587,249	1,707,711
ST. CLAIR COUNTY	16.7	1,385,081	3,031,304
BAL OF WAYNE COUNTY	11.1	1,681,269	7,145,962
ANN ARBOR CITY	7.6	333,556	794,069
BAL OF WASHTENAW COUNTY	13.8	355,920	1,401,722
MICHIGAN		24,008,077	83,642,461
DAKOTA COUNTY	6.3	0	710,766
BAL OF RAMSEY COUNTY	6.1	166,375	591,280
ST. PAUL CITY	7.9	1,021,678	2,536,795
QUAD COUNTIES CSRT	7.8	668,594	1,845,112
REGION III CONSORTIUM	6.3	612,393	1,194,192
DULUTH CITY	11.4	189,503	725,527
BALANCE OF MINNESOTA	6.6	1,891,604	5,695,744
MINNESOTA RURAL CEP	8.6	1,254,930	2,976,121
BAL OF HENNEPIN COUNTY	5.7	0	2,859,231
MINNEAPOLIS CITY	8.3	588,984	3,094,381
MINNESOTA		6,594,549	21,833,334
CINCINNATI CITY	11.0	880,752	3,330,347
BUTLER COUNTY	13.0	560,113	2,081,685
CLARK COUNTY	10.5	271,733	1,021,534
BAL OF HAMILTON COUNTY	6.7	210,679	1,454,896
LORAIN COUNTY	10.0	530,741	1,801,895
AKRON CONSORTIUM	9.3	961,461	3,590,240
CANTON CONSORTIUM	9.5	779,650	2,870,059
CLEVELAND CONSORTIUM	8.4	2,489,252	8,300,786
COLUMBUS CONSORTIUM	7.6	1,222,110	4,243,656
MIAMI VALLEY CONSORTIUM	9.1	962,940	3,510,771
LICKING/DEL CONSORTIUM	9.9	314,197	1,121,085

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TOLEDO CONSORTIUM	9.5	927,167	3,394,492
NORTH EAST OHIO MANPOWER	11.9	1,339,877	5,155,050
BALANCE OF OHIO	10.4	4,185,626	15,704,927
ALLEN COUNTY	11.3	227,046	866,132
GREENE COUNTY	8.1	153,117	541,175
CLERMONT COUNTY CSRT	8.9	263,934	957,765
LAKE/ASHTABULA CSRT	8.5	787,574	2,120,449
PORTAGE COUNTY	13.7	421,610	1,352,568
RICHLAND/MORROW CSRT	11.7	342,996	1,252,155
OHIO		17,855,779	65,280,573
OUTAGAMIE COUNTY	6.2	99,599	355,951
ROCK COUNTY	8.6	356,459	967,626
MILWAUKEE COUNTY	9.1	2,328,000	7,167,615
MADISON/DANE CONSORTIUM	4.9	180,139	813,149
WOW CONSORTIUM	5.6	115,733	991,533
WINNEBAGO CONSORTIUM	7.7	325,334	1,133,885
TRICO CETAC	6.7	596,813	2,155,636
BALANCE OF WISCONSIN	8.3	3,353,968	10,171,221
WISCONSIN NORTHWEST CEP	12.2	507,252	1,166,535
MARATHON COUNTY	7.6	133,446	463,786
WISCONSIN		7,723,448	25,367,439
REGION V		81,640,449	286,499,632

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
CENTRAL ARKANSAS CSRT	6.4	519,548	1,295,867
TEXARKANA	9.5	350,669	701,096
BALANCE OF ARKANSAS	6.6	2,828,323	9,360,553
ARKANSAS		3,698,540	12,357,516
RAPIDES PARISH	9.2	232,217	705,822
BATON ROUGE CITY	6.5	367,928	1,224,103
LAFAYETTE PARISH	5.3	35,427	249,900
CALCASIEU/JEFF CONSORTIUM	8.8	353,747	1,049,909
OUACHITA PARISH	9.0	169,795	616,854
NEW ORLEANS CITY	8.9	2,532,714	5,700,203
JEFFERSON PARISH	5.8	396,602	1,212,489
SHREVEPORT CITY	8.0	260,514	916,895
BALANCE OF LOUISIANA	8.5	4,085,066	10,515,487
LOUISIANA		8,434,010	22,193,662
ALBUQUERQUE CONSORTIUM	7.4	1,216,485	2,826,995
BALANCE OF NEW MEXICO	7.5	1,770,170	4,474,418
NEW MEXICO		2,986,655	7,301,413
COMANCHE COUNTY	9.1	107,357	331,674
OKLAHOMA COUNTY	7.9	245,797	862,415
OKLAHOMA CITY CONSORTIUM	8.6	694,626	2,497,629
BAL OF CLEVELAND COUNTY	7.1	358,252	788,556
TULSA CONSORTIUM	7.3	651,169	2,237,016
BALANCE OF OKLAHOMA	8.2	1,771,993	6,315,131
OKLAHOMA		3,829,194	13,032,421
TEXARKANA CONSORTIUM	10.0	110,277	410,707
TEX. PANHANDLE MANP. CSRT	3.6	44,758	411,796
CAP. AREA MANPOWERCSRT	4.3	183,205	924,318
S.E. TEXAS COMP. CSRT	8.0	526,708	1,788,872
PASADENA CITY	5.1	0	225,766
CAMERON COUNTY	9.9	501,459	1,366,856
COASTAL BEND MANP.CSRT	6.3	359,840	1,310,228
DALLAS CITY	5.3	537,127	2,260,581
BAL OF DALLAS COUNTY	5.0	222,179	1,267,470
LUBBOCK CITY	4.4	85,130	362,373
WEST CENTRAL TEXASCSRT	3.7	169,319	597,258
EL PASO CONSORTIUM	9.3	546,733	2,000,431
FT. WORTH CONSORTIUM	7.0	794,298	2,686,272
BAL OF TARRANT COUNTY	5.7	0	360,716

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
GALVESTON COUNTY	5.6	0	516,796
HOUSTON CITY	5.8	663,734	3,910,309
BAL OF HARRIS COUNTY	5.0	0	1,053,317
CEN. TEXAS MANPOWER CSRT	5.1	106,505	425,354
HIDALGO COUNTY CONSORTIUM	9.8	612,607	1,631,851
ALAMO CONSORTIUM	7.6	1,264,171	4,385,869
REGION XI CONSORTIUM	6.6	168,822	825,405
NORTH TEXAS STATE CSRT	4.2	0	293,245
WEBB COUNTY	17.0	377,789	1,009,490
BRAZORIA CONSORTIUM	4.8	82,726	1,056,107
BALANCE OF TEXAS	5.6	1,946,958	7,611,244
TEXAS		9,304,345	38,686,633
REGION VI		28,252,744	93,631,645

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BALANCE OF IOWA	6.6	2,449,834	7,854,962
BLACKHAWK COUNTY	8.3	199,976	720,962
CEP, IOWA REGIONALCSRT	6.0	696,053	2,044,344
LINN COUNTY MANPOWER CSRT	6.7	139,120	863,281
SCOTT COUNTY	5.9	118,797	723,108
WOODBURY COUNTY	6.6	122,392	718,695
IOWA		3,926,172	12,925,352
BALANCE OF KANSAS	3.5	686,657	2,729,686
KANSAS CITY CONSORTIUM	8.7	488,300	1,356,890
JOHNSON/LEAVENWORTH CSRT	6.0	27,589	634,405
WICHITA CITY	6.0	101,426	907,222
TOPEKA CONSORTIUM	6.0	83,866	493,269
KANSAS		1,387,838	6,121,472
BALANCE OF MISSOURI	6.3	1,277,852	5,998,427
SPRINGFIELD CITY	6.4	71,007	436,188
BAL OF JACKSON COUNTY	7.0	153,441	484,667
KANSAS CITY CONSORTIUM	8.7	1,836,031	4,414,239
JEFFERSON/FRANKLINCSRT	9.5	262,550	965,982
ST. LOUIS COUNTY	6.1	304,086	2,750,200
ST. LOUIS CITY	10.3	763,520	2,856,346
INDEPENDENCE CITY	6.2	142,629	488,515
ST. CHARLES COUNTY	9.1	151,428	552,149
MISSOURI		4,568,544	18,986,733
BALANCE OF NEBRASKA	5.7	714,728	2,496,025
LINCOLN CITY	5.7	56,063	482,473
OMAHA CONSORTIUM	9.1	791,349	2,926,214
NEBRASKA		1,562,200	5,907,512
REGION VII		11,444,754	43,901,069

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ADAMS COUNTY	8.7	351,386	1,266,215
ARAPAHOE COUNTY	6.5	206,874	778,482
BOULDER COUNTY	7.7	236,307	824,617
COLORADO SPRINGS CRST	6.4	239,675	890,750
DENVER CITY/COUNTY	8.6	836,494	2,970,597
JEFFERSON COUNTY	6.7	276,959	1,138,654
LARIMER COUNTY	4.4	41,138	207,172
PUEBLO COUNTY	5.8	58,433	331,645
WELD COUNTY	3.6	30,266	186,782
BALANCE OF COLORADO	5.5	191,006	1,151,756
COLORADO		2,468,538	9,746,670
BUTTE RURAL CEP	5.2	171,970	633,241
BALANCE OF MONTANA	5.2	1,955,105	5,069,798
MONTANA		2,127,575	5,703,039
N. DAKOTA STATEWIDE CSRT	6.7	1,583,191	3,729,442
NORTH DAKOTA		1,583,191	3,729,442
S. DAKOTA STATEWIDE CSRT	5.4	40,750	1,298,553
SOUTH DAKOTA		40,750	1,298,553
UTAH STATEWIDE CONSORTIUM	7.3	1,527,366	5,359,502
UTAH		1,527,366	5,359,502
WYOMING STATEWIDE CSRT	5.0	0	1,186,179
WYOMING		0	1,186,179
REGION VIII		7,747,400	27,023,385

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
BALANCE OF ARIZONA	10.3	1,059,724	3,400,317
PHOENIX CITY	11.0	2,365,747	7,151,924
MARICOPA COUNTY	11.3	1,229,776	3,581,554
TUCSON/PIMA CONSORTIUM	7.7	540,850	1,930,025
ARIZONA		5,196,097	16,161,820
BAL OF ALAMEDA COUNTY	10.8	1,004,322	4,096,277
BERKELEY CITY	16.3	431,599	1,633,026
BAL OF CONTRA COSTA CNTY	10.6	851,011	3,205,353
MARIN COUNTY	5.5	334,595	1,231,242
OAKLAND CITY	15.5	1,572,639	4,709,218
RICHMOND CITY	14.6	200,918	797,010
SAN FRANCISCO CITY/COUNTY	12.8	3,282,670	9,432,125
SAN MATEO COUNTY	8.4	870,762	3,107,533
SONOMA COUNTY	12.9	589,718	2,046,529
SANTA BARBARA COUNTY	8.3	373,979	1,332,523
GLENDALE CITY	7.6	195,846	681,603
LONG BEACH CITY	10.5	647,250	2,933,141
BAL OF LOS ANGELES CNTY	9.6	9,765,361	26,704,302
LOS ANGELES CITY	11.7	7,566,345	25,485,578
ORANGE CNTY MANPOWER CSRI	8.2	7,493,746	8,858,500
PASADENA CITY	8.3	171,217	610,159
TORRANCE CITY	7.9	224,306	748,370
VENTURA COUNTY	10.1	659,022	2,456,586
BALANCE OF CALIFORNIA	15.7	3,405,412	10,275,042
HUMBOLDT COUNTY	17.8	440,783	1,451,026
SANTA CLARA VALLEY	9.5	1,939,597	7,145,930
SOLANO COUNTY	8.8	278,539	879,911
SUNNYVALE CITY	5.8	187,116	674,302
BUTTE COUNTY	15.3	270,501	1,080,776
SACRAMENTO/YOLO CSRT	9.9	1,531,857	5,167,536
STOCKTON/SAN JOAQUIN CSRT	13.0	768,797	2,740,702
STANISLAUS COUNTY	17.7	1,005,277	3,370,082
MONTEREY COUNTY	11.7	432,921	1,650,830
SANTA CRUZ COUNTY	14.3	359,916	1,423,611
FRESNO CITY/COUNTY	10.6	1,496,319	4,174,157
IMPERIAL COUNTY	15.9	200,449	836,526
KERN COUNTY	9.4	559,596	1,980,591
MERCED COUNTY	14.5	243,338	965,186
INLAND MANPOWER ASSN	10.7	2,024,937	7,633,222
SAN LUIS OBISPO COUNTY	7.3	131,909	452,791
TULARE/KINGS COUNTY	8.3	396,111	1,409,161
SAN DIEGO MSIC	12.4	4,697,467	14,203,229
CALIFORNIA		51,715,590	167,300,210
HAWAII BAL OF STATE	10.3	639,999	1,665,602

	UNEMPLOYMENT RATE*	TITLE II TOTAL	TITLE VI TOTAL
HONOLULU CITY/COUNTY	8.4	1,328,200	3,986,418
HAWAII		1,968,199	5,652,020
BALANCE OF NEVADA	10.5	215,174	809,137
LAS VEGAS CONSORTIUM	10.9	955,367	2,960,754
WASHOE COUNTY	8.5	523,968	1,340,388
NEVADA		1,694,509	5,110,281
SAMOA		76,137	263,820
AMERICAN SAMOA		76,137	263,820
GUAM		232,683	804,190
GUAM		232,683	804,190
PACIFIC ISLANDS		198,317	687,193
PACIFIC ISLANDS		198,317	687,193
REGION IX		60,560,932	195,977,534

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MUNICIPALITY OF ANCHORAGE	9.5	286,296	* 1,053,618
BALANCE OF ALASKA	12.7	852,296	2,566,979
ALASKA		1,138,592	3,620,597
IDAHO STATEWIDE CSRT	8.0	1,708,664	4,847,120
IDAHO		1,708,664	4,847,120
PORTLAND CITY	11.1	854,700	3,247,326
BAL OF CLACKAMAS COUNTY	10.2	313,539	1,171,868
LANE COUNTY	13.0	544,851	2,125,256
MULTNOMAH/WASHINGTON CSRT	9.4	604,446	2,218,866
MID WILLAMETTE VALLEY CSR	11.3	488,444	1,862,200
JACKSON COUNTY CONSORTIUM	14.0	515,744	1,670,918
BALANCE OF OREGON	12.5	1,695,372	6,309,940
OREGON		5,216,596	18,606,376
SPOKANE CONSORTIUM	9.8	476,225	1,765,681
CLARK COUNTY	10.8	250,677	947,936
KING/SNOHOMISH CONSORTIUM	9.7	3,811,781	11,377,037
KITSAP COUNTY	9.6	429,347	1,001,883
TACOMA CITY	12.6	325,649	1,248,797
BAL OF PIERCE COUNTY	11.0	429,273	1,473,340
YAKIMA COUNTY	11.1	635,330	1,644,551
BALANCE OF WASHINGTON	11.3	3,686,855	9,780,861
WASHINGTON		10,045,137	29,240,086
REGION X		18,109,009	56,314,179
NATIONAL TOTAL		397,999,259	1,354,288,580

* AVERAGE UNEMPLOYMENT RATE FOR THE THREE HIGHEST CONSECUTIVE MONTHS OF UNEMPLOYMENT JUNE 1975 THROUGH MAY 1976

Signed at Washington, D.C. this 8th day of April 1977.

ROBERT J. ANDERSHOCK
Administrator, Administration and Management

[FR Doc.77-15273 Filed 5-27-77;8:45 am]

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