

action brought under the New Jersey Penalty Enforcement Act (N.J.S.2A.:58-1 *et seq.*)

(f) *Review procedures.* Under the plan, employers, employees and other affected parties may seek informal review with the Department of Labor relative to a notice of violation/Order to Comply, the reasonableness of the abatement period, any penalty and/or may seek formal administrative review with the Occupational Safety and Health Review Commission, a board appointed by the Governor and authorized under section 34:6A.42 of the New Jersey Act to hear and rule on appeals of orders to comply and any penalties proposed. Any employer, employee or employee representative affected by a determination of the Commissioner may file a contest within fifteen (15) working days of the issuance of an order to comply. The Review Commission will issue an order, based on a finding of fact, affirming, modifying, or vacating the commissioner's order to comply or the proposed penalty, or directing other appropriate relief, and the order shall become final 45 days after its issuance. Judicial review of the decision of the Review Commission may be sought at the Appellate Division of the Superior Court.

(g) *Staffing and Resources.* The plan further provides assurances of a fully trained, adequate staff, including 20 safety and 7 health compliance officers for enforcement inspections, and 4 safety and 3 health consultants to perform consultation services in the public sector, and 2 safety and 3 health training and education staff. The State has assured that it will continue to provide a sufficient number of adequately trained and qualified personnel necessary for the enforcement of standards as required by 29 CFR 1956.10. The State has also given satisfactory assurance of adequate funding to support the plan.

(h) *Records and reports.* The plan provides that public employers in New Jersey will maintain appropriate records and make timely reports on occupational injuries and illnesses in a manner substantially identical to that required for private sector employers under Federal OSHA. New Jersey has assured that it will continue its participation in the Bureau of Labor Statistics Annual Survey of Injuries and Illnesses with regard to both private and public sector employers. The State will comply with the provisions of 29 CFR 1904.7 which allows full employee and employee representative access, including employee's names, to the log of workplace injuries and illnesses; and

will amend its regulations accordingly. The plan also contains assurances that the Commissioner of Labor will provide reports to OSHA in such form as the Assistant Secretary may require, and that New Jersey will participate in OSHA's Integrated Management Information System.

(i) *Voluntary compliance programs.* The plan provides that training will be provided to public employers and employees; seminars will be conducted to familiarize affected individuals with OSHA standards, requirements and safe work practices; an on-site consultation program in the public sector will be established to provide services to public employers who so desire; and, all State agencies and political subdivisions will be encouraged to develop and maintain self inspection programs as well as internal safety and health programs as an adjunct to but not a substitute for the Commissioner of Labor's enforcement.

§ 1956.61 Developmental Schedule.

The New Jersey State plan is developmental. The following is a schedule of major developmental steps as provided in the plan:

(a) Adopt standards identical to or at least as effective as all existing OSHA standards within one year after plan approval.

(b) Adopt amendments to regulations regarding inspections, citations, and proposed penalties equivalent to 29 CFR part 1903 within one year after plan approval.

(c) Develop a five year strategic plan within two years after plan approval.

(d) Develop field inspection reference manual and/or field operations manual within two years after plan approval.

(e) Fully implement public employer/employee consultation, training and education program equivalent to 29 CFR part 1908 within three years after plan approval.

(f) Adopt amendments to regulations regarding discrimination against employees equivalent to 29 CFR part 1977 within two years after plan approval.

(g) Adopt amendments to regulations regarding variances equivalent to 29 CFR part 1905 within two years after plan approval.

(h) Adopt amendments to regulations regarding record keeping equivalent to 29 CFR part 1904 within two years after plan approval.

§ 1956.62 Completion of developmental steps and certification. (Reserved).

§ 1956.63 Determination of operational effectiveness. (Reserved).

§ 1956.64 Location of plan for inspection and copying.

A copy of the plan may be inspected and copied during normal business hours at the following locations: Office of State Programs, U.S. Department of Labor, Occupational Safety and Health Administration, 200 Constitution Avenue, N.W., Room N-3700, Washington, D.C. 20210; Office of the Regional Administrator, U.S. Department of Labor, Occupational Safety and Health Administration, 1201 Varick Street, Room 670, New York, New York 10014; and New Jersey Department of Labor, Division of Public Safety and Occupational Safety and Health, Office of Public Employees' Safety, P.O. Box 386, 225 East State Street, 8th Floor West, Trenton, New Jersey 08625-0386.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141

[FRL-6920-6]

RIN 2040-AD58

Unregulated Contaminant Monitoring Regulation for Public Water Systems; Analytical Methods for List 2 Contaminants; Clarifications to the Unregulated Contaminant Monitoring Regulation

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Safe Drinking Water Act (SDWA), as amended in 1996, requires the U.S. Environmental Protection Agency to establish criteria for a program to monitor unregulated contaminants and to publish a list of contaminants to be monitored. In fulfillment of this requirement, EPA published the Revisions to the Unregulated Contaminant Monitoring Regulation (UCMR) for public water systems on September 17, 1999, which included lists of contaminants for which monitoring was required or would be required in the future. These lists included: List 1 for contaminants with approved analytical methods; List 2 for contaminants with methods that were being refined; and List 3 for

contaminants with methods that were still being developed.

Today's rule approves the analytical methods for thirteen chemical contaminants on List 2, and requires monitoring for those contaminants in drinking water. This rule also sets the schedule for monitoring one microbiological contaminant, *Aeromonas*, contingent on promulgation of its analytical method. These methods and associated monitoring will be used to support EPA decisions concerning whether or not to regulate and establish standards for these contaminants in drinking water. The intent of regulating and setting standards for any of these contaminants that may be found to occur at levels of health concern is to protect public health. Additionally, in today's rule, EPA includes modifications to the UCMR (published September 17, 1999) that affect the implementation of monitoring for both List 1 and List 2 contaminants.

DATES: *Effective Date:* The final rule is effective January 11, 2001.

The incorporation by reference of the publications listed in today's rule is approved by the Director of the Federal Register as of January 11, 2001.

For purposes of judicial review, this final rule is promulgated as of 1 p.m. Eastern time on January 11, 2001, as provided in 40 CFR 23.7.

ADDRESSES: Documents relevant to this action are available for inspection from 9 a.m. to 4 p.m., Eastern Time, Monday through Friday, excluding legal holidays, at the Water Docket, East Tower Basement, Room 57, U.S. EPA, 401 M Street, SW., Washington DC. For access to docket (Docket No. W-00-01) materials, please call (202) 260-3027 between 9 a.m. and 3:30 p.m., Eastern Time, Monday through Friday, to schedule an appointment. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Charles Job, Drinking Water Protection Division, Office of Ground Water and Drinking Water (MC-4607), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington D.C. 20460, (202) 260-7084. General information may also be obtained from the EPA Safe Drinking Water Hotline. Callers within the United States may reach the Hotline at (800) 426-4791. The Hotline is open Monday through Friday, excluding federal holidays, from 9 a.m. to 5:30 p.m. Eastern Time.

SUPPLEMENTARY INFORMATION:

Regional Contacts

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Abbreviations and Acronyms Used in the Preamble and Final Rule

2,4-DNT—2,4-dinitrotoluene
 2,6-DNT—2,6-dinitrotoluene
 4,4'-DDE—4,4'-dichloro dichlorophenyl ethylene, a degradation product of DDT
 Alachlor ESA—alachlor ethanesulfonic acid, a degradation product of alachlor
 AOAC—Association of Official Analytical Chemists
 APHA—American Public Health Association
 ASDWA—Association of State Drinking Water Administrators
 ASTM—American Society for Testing and Materials
 CAS—Chemical Abstract Service
 CASRN—Chemical Abstract Service Registry Number
 CCL—Contaminant Candidate List
 CCR—Consumer Confidence Reports
 CERCLA—Comprehensive Environmental Response, Compensation & Liability Act
 CFR—Code of Federal Regulations
 CFU/mL—colony forming units per milliliter
 CWS—community water system
 DCPA—dimethyl tetrachloroterephthalate, chemical name of the herbicide dacthal
 DCPA mono- and di-acid degradates—degradation products of DCPA
 DDE—dichloro dichlorophenyl ethylene, a degradation product of DDT
 DDT—dichloro diphenyl trichloroethane, a general insecticide
 DNA—deoxyribonucleic acid
 EDL—estimated detection limit
 EPA—Environmental Protection Agency
 EPTC—s-ethyl-dipropylthiocarbamate, an herbicide
 EPTDS—Entry Point to the Distribution System
 ESA—ethanesulfonic acid, a degradation product of alachlor and other acetanilide pesticides
 FACA—Federal Advisory Committee Act
 FSIS—federalism summary impact statement
 FTE—full-time equivalent
 GC—gas chromatography, a laboratory method
 GLI method—Great Lakes Instruments method

GW—ground water
 GUDI—ground water under the direct influence (of surface water)
 HPLC—high performance liquid chromatography, a laboratory method
 IC—ion chromatography
 ICR—Information Collection Rule
 IRFA—initial regulatory flexibility analysis
 IMS—immunomagnetic separation
 IRIS—Integrated Risk Information System
 IS—internal standard
 LLE—liquid/liquid extraction, a laboratory method
 MAC—*Mycobacterium avium* complex
 MCL—maximum contaminant level
 MCT—matrix conductivity threshold
 MDL—method detection limit
 MOA—Memorandum of agreements
 MRL—minimum reporting level
 MS—mass spectrometry, a laboratory method
 MS—sample matrix spike
 MSD—sample matrix spike duplicate
 MTBE—methyl tertiary-butyl ether, a gasoline additive
 NAICS—North American Industry Classification System
 NAWQA—National Water Quality Assessment Program
 NCOD—National Drinking Water Contaminant Occurrence Database
 NDWAC—National Drinking Water Advisory Council
 NERL—National Environmental Research Laboratory
 NPS—National Pesticide Survey
 NTIS—National Technical Information Service
 NTNCWS—non-transient non-community water system
 NTTAA—National Technology Transfer and Advancement Act
 OGWDW—Office of Ground Water and Drinking Water
 OMB—Office of Management and Budget
 PAH—Polycyclic aromatic hydrocarbon
 PB—particle beam
 PBMS—Performance-Based Measurement System
 pCi/L—picocuries per liter
 PCR—polymerase chain reaction
²¹⁰Pb—Lead-210 (also Pb-210), a lead isotope and radionuclide; part of the uranium decay series
²¹⁰Po—Polonium-210 (also Po-210), a polonium isotope and radionuclide; part of the uranium decay series
 PWS—Public Water System
 PWSF—Public Water System Facility
 QA—quality assurance
 QC—quality control
 RDX—royal demolition explosive, hexahydro-1,3,5-trinitro-1,3,5-triazine
 RFA—Regulatory Flexibility Act
 RPD—relative percent difference
 RSD—relative standard deviation
 SBREFA—Small Business Regulatory Enforcement Fairness Act
 SD—standard deviation
 SDWA—Safe Drinking Water Act
 SDWIS—Safe Drinking Water Information System
 SDWIS/FED—the Federal Safe Drinking Water Information System
 SM—Standard Methods for the Examination of Water and Wastewater
 SMF—Standard Compliance Monitoring Framework

SOC—synthetic organic compound
 SOP—standard operating procedure
 SPE—solid phase extraction, a laboratory method
 spp.—multiple species
 SRF—State Revolving Fund
 STORET—Storage and Retrieval System
 SW—surface water
 TBD—to be determined
 TDS—total dissolved solid
 TNCWS—transient non-community water system
 TTHM—total trihalomethane
 UCMR—Unregulated Contaminant Monitoring Regulation/Rule
 UCM—Unregulated Contaminant Monitoring
 UMRA—Unfunded Mandates Reform Act of 1995
 USEPA—United States Environmental Protection Agency
 UV—ultraviolet
 VOC—volatile organic compound
 µg/L—micrograms per liter
 µS/cm—microsiemens per centimeter

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Potentially Regulated Entities

The regulated entities are public water systems. All large community and non-transient non-community water systems serving more than 10,000 persons are required to monitor. A community water system (CWS) means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Non-transient non-community water system (NTNCWS) means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year. Only a national representative sample of community and non-transient non-community systems serving 10,000 or fewer persons will be required to monitor. Transient non-community systems (i.e., systems that do not regularly serve at least 25 of the same persons over six months per year) will not be required to monitor. States, Territories, and Tribes, with primacy to administer the regulatory program for public water systems under the Safe Drinking Water Act, sometimes conduct analyses to measure for contaminants in water samples and are regulated by this action. Categories and entities potentially regulated by this action include the following:

| Category | Examples of potentially regulated entities | NAICS |
|---|--|--------|
| State, Territorial and Tribal Governments ... | States, Territories, and Tribes that analyze water samples on behalf of public water systems required to conduct such analysis; States, Territories, and Tribes that themselves operate community and non-transient non-community water systems required to monitor. | 924110 |
| Industry | Private operators of community and non-transient non-community water systems required to monitor. | 221310 |
| Municipalities | Municipal operators of community and non-transient non-community water systems required to monitor. | 924110 |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware of that could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

I. Statutory Authority

SDWA section 1445 (a)(2), as amended in 1996, requires EPA to establish criteria for a program to monitor unregulated contaminants and to issue, by August 6, 1999, a list of contaminants to be monitored. In fulfillment of this requirement, EPA published the Revisions to the Unregulated Contaminant Monitoring Regulation (UCMR) for public water

systems on September 17, 1999 (64 FR 50556), which included lists of contaminants for which monitoring was required or would be required in the future. These lists included: List 1 for contaminants with approved analytical methods; List 2 for contaminants with methods that were being refined; and List 3 for contaminants with methods that were still being developed. The rule covered: (1) The frequency and schedule for monitoring, based on PWS size, water source, and likelihood of finding contaminants; (2) a new, shorter list of contaminants for which systems will monitor; (3) procedures for selecting and monitoring a nationally representative sample of small PWSs (those serving 10,000 or fewer persons); and (4) procedures for entering the monitoring data in the National Drinking Water Contaminant Occurrence Data Base (NCOD), as required under section 1445.

II. Major Program Revisions

Today's action establishes analytical methods for measurement of 13 chemical contaminants, which were included on the UCMR (1999) List 2, and requirements for monitoring of those contaminants by public water systems. The 1999 List 2 contaminants and their sources, including amendments to List 2 established today, are presented in Table 1, Uses and Environmental Sources of UCMR (1999) List 2 Contaminants. This action also establishes modifications affecting the sample collection, analysis and reporting of both List 1 and List 2 contaminants. Such modifications include clarifying source water monitoring, resampling conditions, additional methods, and clarification of definitions of some data elements for reporting. None of these changes result in a major burden or impact and some changes may reduce burden, but they should improve data quality.

TABLE 1.—USES AND ENVIRONMENTAL SOURCES OF UCMR (1999) LIST 2 CONTAMINANTS

| Contaminant Name | CASRN | Use or Environmental Source |
|--|------------|--|
| Final Chemical Contaminants | | |
| 1,2-diphenylhydrazine | 122-66-7 | Used in the production of benzidine and anti-inflammatory drugs. |
| 2-methylphenol | 95-48-7 | Released in automobile and diesel exhaust, coal tar and petroleum refining, and wood pulping. |
| 2,4-dichlorophenol | 120-83-2 | Chemical intermediate in herbicide production. |
| 2,4-dinitrophenol | 51-28-5 | Released from mines, metal, petroleum, and dye plants. |
| 2,4,6-trichlorophenol | 88-06-2 | By-product of fossil fuel burning, used as bactericide and wood/glue preservative. |
| Alachlor ESA and other acetanilide pesticides. | N/A | Degradation product of alachlor and other acetanilide pesticides, herbicides generally used with corn, bean, peanut, and soybean crops to control grasses and weeds. |
| Diazinon | 333-41-5 | Insecticide used with rice, fruit, vineyards, and corn crops. |
| Disulfoton | 298-04-4 | Insecticide used with cereal, cotton, tobacco, and potato crops. |
| Diuron | 330-54-1 | Herbicide used on grasses in orchards and wheat crops. |
| Fonofos | 944-22-9 | Soil insecticide used on worms and centipedes. |
| Linuron | 330-55-2 | Herbicide used with corn, soybean, cotton, and wheat crops. |
| Nitrobenzene | 98-95-3 | Used in the production of aniline, which is used to make dyes, herbicides, and drugs. |
| Prometon | 1610-18-0 | Herbicide used on annual and perennial weeds and grasses. |
| RDX (royal demolition explosive, hexahydro-1,3,5-trinitro-1,3,5-triazine). | 121-82-4 | Used in explosives; ammunition plants. |
| Terbufos | 13071-79-9 | Insecticide used with corn, sugar beet, and grain sorghum crops. |
| Microbiological Contaminant | | |
| <i>Aeromonas</i> | N/A | Present in all freshwater and brackish water. |

III. Summary of Today's Rule

The September 1999 rule included a list of contaminants to be monitored which was further subdivided into three lists: List 1 for contaminants with current approved analytical methods, List 2 for contaminants with methods being refined, and List 3 for contaminants with methods being developed in research. In a supplemental rule, published March 2, 2000, (65 FR 11371), the methods for

two List 1 contaminants were established as were some technical corrections to the UCMR rule. Sixteen contaminants were included on the UCMR (1999) List 2, with their analytical methods listed as "reserved," pending the conclusion of EPA refinement and review of the analytical methods. EPA proposed analytical methods for 13 chemical contaminants and nitrobenzene, as well as *Aeromonas*, a microbiological

contaminant, on List 2 on September 13, 2000. Today's final rule amends the 1999 UCMR to specify analytical methods for monitoring for 13 organic chemical contaminants, and it establishes the monitoring schedule for 13 contaminants (13 organic chemicals) on List 2. Today's rule adds one contaminant to List 2, nitrobenzene, (**Note:** Nitrobenzene is also on List 1 using a method with a higher minimum reporting level) and moves one other

contaminant, polonium-210, from List 2 to List 3. In addition, today's final rule activates Screening Survey monitoring for these 13 contaminants, as described in § 141.40(a)(3), Table 1, List 2. This final rule also contains several minor wording and technical changes to the September 1999 rule in response to comments received on the September 2000 proposal. Additionally, the preamble to today's rule includes discussion of EPA's responses to the comments received on the proposed rule.

IV. Process of Preparing the Final Rule

EPA has been developing the final revisions to the Unregulated Contaminant Monitoring Regulation (UCMR) for public water systems since 1997. In December 1997, EPA's UCMR development workgroup held a stakeholders meeting to obtain input from the public on major issues and options affecting the program and emanating from the Safe Drinking Water Act, as amended in 1996. EPA held a second stakeholders meeting in May 1998, on options under serious consideration for the UCMR. EPA engaged eleven external expert reviewers from March 1 through April 22, 1999, to examine and comment on the technical aspects of the UCMR. These technical reviewers evaluated and commented on the chemical and microbiological contaminant analytical methods and reporting requirements, the statistical approach for the representative sample of small systems, and the sampling and monitoring approach. The comments of the technical reviewers were available to the public through the official docket and on the Internet through EPA's Office of Ground Water and Drinking Water electronic homepage.

The comment period on the original UCMR revision (published in the **Federal Register** on April 30, 1999) closed on June 14, 1999, with submissions from 155 commenters meeting the deadline and addressing all major aspects of the proposed rule.

The final rule on the original UCMR revisions was published on September 17, 1999 (64 FR 50556). EPA conducted five national workshops on implementation of the final regulation. At these workshops, EPA received many comments from State, Tribal and Regional participants concerning various aspects of implementing the rule. As a result of this additional input, EPA subsequently modified the original UCMR on March 2, 2000 (65 FR 11371) through a direct final rule and proposed additional changes to the original rule on September 13, 2000. Today's final

rule promulgates the modifications proposed on September 13, 2000 (in addition to establishing List 2 monitoring requirements).

The comment period for the September 13, 2000, List 2 proposal (65 FR 55362) closed on October 13, 2000. EPA received 15 comments which were submitted within the specified comment period. These comments addressed all major aspects of the proposal and EPA considered and addressed all comments in the process of developing this final regulation.

V. Explanation of Today's Action

A. Relation to the UCMR Published in September 1999

The final UCMR, published on September 17, 1999, and subsequently revised on March 2, 2000, consisted of many program elements designed to enhance and improve the unregulated contaminant monitoring program in several important ways. The rule specifies (1) which systems must monitor, including a statistical approach to select a representative sample of small public water systems; (2) a list of contaminants for which systems must monitor; (3) the monitoring time, frequency, and location of sampling; (4) which methods are to be used for analyzing the contaminants; (5) quality control elements that must be followed in addition to those specified in each analytical method; (6) reporting requirements; and (7) State and Tribal participation concerning the implementation of the monitoring program.

EPA divided the list of contaminants for which systems must monitor into three separate lists based on the availability of analytical methods and the scope of monitoring to be required. List 1, Assessment Monitoring, consisted of 12 contaminants for which analytical methods were available. List 2, Screening Survey, consisted of 16 contaminants for which EPA expected analytical methods would be developed by the time of initial monitoring in 2001. Pre-Screen Testing, List 3, consisted of eight contaminants for which analytical methods research was being conducted. Only the contaminants on List 1 must be monitored at all 2,774 large community and non-transient non-community public water systems serving more than 10,000 persons, and at a representative sample of approximately 800 systems serving 10,000 or fewer persons. From this set of approximately 3,600 large and small public water systems, EPA has randomly selected approximately 300 large and small systems to monitor for

List 2 contaminants in Screening Surveys. Today's rule specifies the analytical methods for 13 List 2 contaminants. The method for the microbiological contaminant, *Aeromonas*, is reserved in today's notice, but EPA expects to promulgate EPA Method 1605 in 2001. Methods for the other two List 2 contaminants, RDX and Alachlor ESA, need to be refined for analysis in treated drinking water.

The placement of 16 contaminants on List 2 meant that their analytical methods were being further refined and were not ready for the extensive monitoring that would occur for the List 1 contaminants. The evaluation of the 13 new methods during monitoring for List 2 contaminants will include developing the data necessary to support the determination of practical quantitation levels, which are needed to support possible future regulations, as well as determining the occurrence of the analytes measured. Today's final rule provides for monitoring 13 List 2 chemical contaminants at the 180 small systems randomly selected from the 800 small systems in the State Monitoring Plans beginning in January 2001 (with the small systems (or State) doing the sampling and EPA conducting the testing and reporting). State Monitoring Plans (SMPs) collectively specify the 800 randomly selected small water systems serving 10,000 or fewer persons and constitute the national representative sample of small systems. The SMPs also collectively specify 120 randomly selected large systems that must monitor for List 2 contaminants, beginning in January 2002. A second Screening Survey for one List 2 microbiological contaminant (*Aeromonas*) will be performed in 2003 by 180 other small systems and 120 other large systems once the final method is promulgated. The delay of the Screening Survey for the microbiological contaminant will allow EPA to publish the new method and will allow time for laboratories to gain experience with the new method and have capacity available for large system testing.

The rule establishes timing that will allow monitoring of these List 2 contaminants at small systems concurrently with the List 1, Assessment Monitoring, contaminants. Small systems will monitor in 2001 for List 2 contaminants ahead of large systems in 2002 because EPA is paying for the small system monitoring, and also plans to review the performance of the methods prior to large system monitoring, which must be paid for by the large systems.

Methods are still being refined for the remaining two List 2 chemical contaminants. If methods for these contaminants are developed in a timely fashion, they may be added for monitoring in a separate rule, probably during the next UCMR 5-year regulatory cycle.

As provided in the September 1999 rule (64 FR 50556), surface water systems will monitor quarterly for one year, and ground water systems will monitor twice in one year for List 2 chemical contaminants. Today's final rule specifies quarterly monitoring for microbiological contaminants with monthly monitoring during the vulnerable (warm) quarter. List 1 Assessment Monitoring must be done within the three years of 2001 through 2003, which is intended to allow coordination with the three-year compliance monitoring cycle for regulated contaminants. The exceptions that would involve Assessment Monitoring beyond 2003 include: loss of samples for any reason, necessitating another sampling event, or initiating sampling at entry points to the distribution system if contaminants are found in systems that conduct their other compliance monitoring at source (raw) water sampling points. One of these quarterly or semiannual sampling events must occur in the most vulnerable period of May through July, or an alternate vulnerable period designated by the State, to ensure monitoring of seasonally elevated contaminant concentrations.

B. Systems Affected by This Rule

The focus of UCMR List 2 is on the occurrence or likely occurrence of

contaminants in drinking water of community and non-transient, non-community water systems. For regulatory purposes, public water systems are categorized as "community water systems," or "non-community water systems." Community water systems are specifically defined as "public water systems which serve at least 15 service connections used by year-round residents or regularly serve at least 25 year round residents" (40 CFR 141.2). A "non-community water system" means any other public water system. Non-community water systems include non-transient non-community water systems and transient non-community water systems. Non-transient non-community systems are those that regularly serve at least 25 of the same persons over six months per year (e.g., schools, industrial buildings). Transient systems are all other non-community systems, which typically serve a transient population such as restaurants or hotels. As explained in the September 1999 UCMR, EPA is excluding transient water systems from monitoring for unregulated contaminants, including those on List 2. The results from the small community and non-transient non-community systems can be extrapolated to the transient non-community systems, if needed.

With respect to size, about 2,800 large systems (defined here as those serving more than 10,000 persons) provide drinking water to about 80 percent of the U.S. population that is served by public water systems. The SDWA does not provide for EPA funding of this monitoring. Under the UCMR program,

all large systems are required to monitor for List 1 unregulated contaminants. Only a representative sample of systems serving 10,000 persons or fewer can be required to monitor for unregulated contaminants. SDWA authorizes EPA to pay for the reasonable testing costs for the national representative sample of small systems.

As described in the September 17, 1999, **Federal Register** (64 FR 50556), EPA has selected 300 large and small systems from the systems required to conduct Assessment Monitoring for List 1 to participate in the monitoring for List 2 contaminants. The 300 systems were divided as follows: 120 large systems serving more than 10,000 persons and 180 small systems serving 10,000 or fewer persons. These allocations were approximately subdivided as follows: For the large systems, 60 systems were selected from systems serving more than 50,000 persons and 60 were from systems serving from 10,001 to 50,000 persons. For the small systems, 60 systems were selected from each of the following service size categories: 25 to 500 persons, 501 to 3,300 persons, and 3,301 to 10,000 persons. These systems were further allocated by water source type and were randomly selected from the systems required to conduct Assessment Monitoring for List 1 contaminants. The final systems selected are identified in the final State Monitoring Plans that EPA is sending to the States. The final allocations may vary from these numbers based on the State Monitoring Plan review and final system selection.

TABLE 2.—STATUS OF ANALYTICAL METHODS FOR CHEMICAL CONTAMINANTS ON THE UCMR (1999) LIST

| | CAS# | Availability of analytical methods | Status of availability |
|--------------------------------|------------|--|---|
| UCMR (1999) | | | |
| List 1—Chemical Contaminant: | | | |
| 2,4-dinitrotoluene | 121-14-2 | EPA Method 525.2 | Methods is adequate for List 1 monitoring. |
| 2,6-dinitrotoluene | 606-20-2 | EPA Method 525.2 | Method is adequate for List 1 monitoring. |
| 4,4'-DDE | 72-55-9 | EPA Method 508, EPA Method 508.1, EPA Method 525.2, D5812-96, AOAC 990.06. | Methods are adequate for List 1 monitoring. |
| Acetochlor | 34256-82-1 | EPA Method 525.2 | Method is adequate for List 1 monitoring. |
| DCPA di acid degradate | 2136-79-0 | EPA Method 515.1, EPA Method 515.2, EPA Method 515.3, EPA Method 515.4, D5317-93, AOAC 992.32. | Methods are adequate for List 1 monitoring. |
| DCPA mono acid degradate | 887-54-7 | EPA Method 515.1, EPA Method 515.2, EPA Method 515.3, EPA Method 515.4, D5317-93, AOAC 992.32. | Methods are adequate for List 1 monitoring. |
| EPTC | 759-94-4 | EPA Method 507, EPA Method 525.2, D5475-93, AOAC 991.07. | Methods are adequate for List 1 monitoring. |
| Molinate | 2212-67-1 | EPA Method 507, EPA Method 525.2, D5475-93, AOAC 991.07. | Methods are adequate for List 1 monitoring. |
| MTBE | 1634-04-4 | EPA Method 502.2, EPA Method 524.2, D5790-95, SM6210D, SM6200B, SM6200C. | |

TABLE 2.—STATUS OF ANALYTICAL METHODS FOR CHEMICAL CONTAMINANTS ON THE UCMR (1999) LIST—Continued

| | CAS# | Availability of analytical methods | Status of availability |
|---|------------|--|--|
| Nitrobenzene | 98-95-3 | EPA Method 524.2, D5790-95, SM6210D, SM6200B. | Methods are adequate for List 1 monitoring. |
| Perchlorate | 14797-73-0 | EPA Method 314.0 | Method is adequate for List 1 monitoring. |
| Terbacil | 5902-51-2 | EPA Method 507, EPA Method 525.2, D5475-93, AOAC 991.07. | Methods are adequate for List 1 monitoring. |
| UCMR (1999) | | | |
| List 2—Chemical Contaminant | | | |
| 1,2-diphenylhydrazine | 122-66-7 | EPA Method 526 | Methods is adequate for List 2 Monitoring in 2001-2002 ^a |
| 2,4,6-trichlorophenol | 88-06-2 | EPA Method 528 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| 2,4-dichlorophenol | 120-83-2 | EPA Method 528 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| 2,4-dinitrophenol | 51-28-5 | EPA Method 528 | Methods is adequate for List 2 Monitoring in 2001-2002 ^a |
| 2-methyl-phenol | 95-48-7 | EPA Method 528 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Alachlor ESA and degradation by-products of acetanilide pesticides. | | Being refined | Candidate for a 3rd Screening Survey, if conducted |
| Diazinon | 333-41-5 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Disulfoton | 298-04-4 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Diuron | 330-54-1 | EPA Method 532 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Fonofos | 944-22-9 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Linuron | 330-55-2 | EPA Method 532 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Nitrobenzene | 98-95-3 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| Prometon | 1610-18-0 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| RDX | 121-82-4 | Being refined | Candidate for a 3rd Screening Survey, if conducted |
| Terbufos | 13071-79-9 | EPA Method 526 | Method is adequate for List 2 Monitoring in 2001-2002 ^a |
| UCMR (1999) | | | |
| List 3—Chemical Contaminant: | | | |
| Polonium-210 (²¹⁰ Po) | 13981-52-7 | In development | Radichemistry laboratory capacity is limited. |
| Lead-210 (²¹⁰ Pb) | 14255-04-0 | In development | Method is time-consuming and expensive. Radiochemistry laboratory capacity is limited. |

^aSmall systems selected for the Screening Survey One will monitor for these contaminants in 2001, and large systems selected for the Screening Survey One will monitor in 2002.

TABLE 3.—STATUS OF ANALYTICAL METHODS FOR MICROBIOLOGICAL CONTAMINANTS ON THE UCMR (1999) LIST

| | Availability of Analytical Methods | Status of Availability |
|--|---|---|
| UCMR (1999) | | |
| List 2—Microbiological Contaminants: | | |
| <i>Aeromonas</i> | Reserved | Method has been proposed. EPA expects to promulgate the method in 2001. |
| UCMR (1999) | | |
| List 3—Microbiological Contaminants: | | |
| Cyanobacteria (blue-green algae, other freshwater algae and their toxins). | Methods available but not standardized. | Methods are available for counting cyanobacteria but new, standardized methods are needed for direct counts of targeted species with filtration methods or a counting chamber. Standardized analytical methods are also needed to detect the more important cyanobacterial toxins. |
| Echoviruses | Methods available but not standardized. | Echoviruses can be cultured on BGM cells available and detected by the ICR method but require supplemental methods such as serological typing to distinguish echoviruses from other viruses. Cost of cell culture assays plus serotyping can be high. RT/PCR methods are subject to interferences and do not demonstrate infectivity. Combined cell culture and PCR, which demonstrates infectivity, may be considered. |

TABLE 3.—STATUS OF ANALYTICAL METHODS FOR MICROBIOLOGICAL CONTAMINANTS ON THE UCMR (1999) LIST—Continued

| | Availability of Analytical Methods | Status of Availability |
|----------------------------------|---|--|
| Coxsackieviruses | Methods available but not standardized. | Group B coxsackieviruses are easy to grow in tissue culture but group A coxsackievirus detection in cell culture is variable. Culturable coxsackieviruses can be detected with the ICR method but serological typing is needed to distinguish coxsackieviruses from other viruses. RT/PCR methods are subject to interferences and do not demonstrate infectivity. New, standardized methods are needed. Combined cell culture and PCR methods may be considered. |
| <i>Helicobacter pylori</i> | No suitable method currently available. | <i>Helicobacter pylori</i> is difficult to cultivate because of its slow growth rate and the need for a low oxygen environment. No selective medium exists that will discriminate <i>H. pylori</i> from background bacteria. A culture-based method that demonstrates viability is preferred. Methods are needed for selective growth and identification. IMS has been used to concentrate <i>Helicobacter pylori</i> . Methods using PCR alone have been used but have not been validated by EPA. In general, PCR methods are not preferred due to interferences and their inability to demonstrate viability. A combined cultural and molecular method may be considered. |
| Microsporidia | No suitable method currently available. | No methods are available for the monitoring of the two species of human microsporidia which may have a waterborne route of transmission [<i>Enterocytozoon bienuesi</i> and <i>Encephalitozoon</i> (formerly <i>Septata</i>) <i>intestinalis</i>]. Spores could possibly be detected by methods similar to those being developed for <i>Cryptosporidium parvum</i> . Potential methods may utilize water filtration, clean-up with IMS, and detection using microscopy with either fluorescent antibody or gene probe procedures. Provided that procedures are validated by EPA, reverse-transcriptase (RT)–PCR techniques may be considered for monitoring, although PCR methods in general are not preferred at this time due to interferences and their inability to demonstrate viability. Due to the small size of microsporidia, problems could be encountered during filtration. |
| Adenoviruses | No suitable method currently available. | Adenoviruses serotypes 1 to 39 and 42 to 47 can be grown in tissue culture but enteric adenoviruses 40 to 41 are difficult to grow. Several selective tissue culture methods and detection methods have been reported. A selective, standardized method is needed for monitoring. PCR methods are not preferred, as they are subject to interferences and do not demonstrate infectivity. A combined cell culture and PCR method may be considered. |
| Caliciviruses | No suitable method currently available. | No tissue culture methods exist for the two genogroups of caliciviruses on the CCL (the Norwalk-like and the Snow Mountain-like agents). No sensitive or fully developed detection methods exist. PCR methods are not preferred, as they are subject to interferences and do not demonstrate infectivity. A combined cell culture and PCR method may be considered if a suitable cell line is found. |

C. Changes to the UCMR Associated With the Screening Survey for List 2 Contaminants

1. Description of Screening Surveys for List 2 Contaminants

The contaminants for which EPA is promulgating new methods are listed in § 141.40(a)(3), Table 1, List 2. Today's rule activates the Screening Survey monitoring for these List 2 contaminants for which methods are being promulgated today. The purpose of the Screening Survey is to analyze for contaminants where the use of newly developed, non-routine analytical methods are required. The Screening Survey approach will allow EPA to maximize scientifically-defensible occurrence data for emerging contaminants of concern more quickly than could be obtained through a more standard unregulated contaminant monitoring effort. The Screening Survey

will, for example, be useful in addressing questions concerning whether a contaminant of concern is in fact occurring in drinking water and the range of concentrations of that occurrence. The Screening Survey is also intended to allow EPA to screen contaminants to see if they occur at high enough frequencies or at concentrations that justify inclusion in future unregulated contaminant Assessment Monitoring or at sufficiently low frequencies so that they do not require further monitoring or regulation.

Under today's rule, the Screening Survey for List 2 contaminants will be implemented in two parts: Screening Survey One for chemical contaminants in 2001 at selected small systems and 2002 at selected large systems, and Screening Survey Two for *Aeromonas*, a microbiological contaminant, in 2003 at selected small and large systems.

The contaminants in UCMR (1999) List 2 will be monitored, as part of a Screening Survey, by a smaller, statistically selected sample of 300 systems which represent all (large and small) community and non-transient non-community water systems. As in Assessment Monitoring for List 1 contaminants, public water systems serve as a surrogate for the population potentially affected, and are a more efficient way to develop a sampling approach to estimate exposure to contaminants. These systems have been selected using a random number generator. As discussed in the proposal, EPA will use the data from the Screening Survey as an initial assessment of occurrence to determine whether: (1) More extensive monitoring of a contaminant is warranted (e.g., in the next round of Assessment Monitoring) to determine the need for future regulation; (2) a contaminant

should be eliminated from further consideration for regulation; or, (3) under circumstances of wide-spread occurrence, a contaminant should be moved directly into consideration for regulatory development. EPA will, of course, evaluate other factors and not just this measure of occurrence before deciding to regulate a contaminant.

EPA will pay for the shipping, testing, and reporting for the Screening Survey for systems serving 10,000 or fewer persons. Systems serving 10,000 or fewer persons will be responsible for sample collection and preparing the samples for shipment. EPA will pay for

the shipping of these samples to an EPA-designated laboratory for testing and for reporting of monitoring results to EPA, with a copy to the State. Large systems, those serving more than 10,000 persons, must arrange and pay for the monitoring, shipping, testing, and reporting of results.

2. Contaminants and Analytical Methods

In today's final rule, EPA establishes the use of three new EPA methods for the monitoring of 13 chemical contaminants on List 2. These contaminants and methods are listed in

Table 2. In addition, EPA has added nitrobenzene to List 2. Methods for two chemical contaminantsalachlor ESA and RDX are still being refined and remain reserved on List 2. EPA has moved polonium-210 to List 3. Finally, *Aeromonas* remains reserved for List 2 monitoring (see Table 3). Other pertinent information is listed on Table 4 related to the detection and quantitation for the 13 contaminants to be monitored from List 2. The status of the contaminants and methods are discussed in further detail in this section.

TABLE 4.—DETECTION AND QUANTITATION FOR LIST 2 CONTAMINANTS

| | Detection limit | Final MRL ^a |
|---|-----------------------------|------------------------|
| Contaminant: | | |
| 2-methylphenol | 0.03 µg/L | 1 µg/L |
| 2,4,6-trichlorophenol | 0.05 µg/L | 1 µg/l |
| 2,4-dichlorophenol | 0.03 µg/L | 1 µg/L |
| 2,4-dinitrophenol | 0.3 µg/L | 5 µg/L |
| 1,2 diphenylhydrazine | 0.03 µg/L | 0.5 µg/L |
| Diazinon | 0.02 µg/L | 0.5 µg/L |
| Disulfoton | 0.02 µg/L | 0.5 µg/L |
| Fonofos | 0.02 µg/L | 0.5 µg/L |
| Prometon | 0.04 µg/L | 0.5 µg/L |
| Terbufos | 0.02 µg/L | 0.5 µg/L |
| Nitrobenzene | 0.01 µg/L | 0.5 µg/L |
| Linuron | 0.07 µg/L | 1 µg/L |
| Diuron | 0.1 µg/L | 1 µg/L |
| Alachlor ESA and other acetanilide pesticide degradates | Reserved ^b | Reserved ^b |
| RDX | Reserved ^b | Reserved ^b |
| Microbiological Contaminant: | | |
| <i>Aeromonas</i> | Reserved ^b | Reserved ^b |

^a Minimum Reporting Level based upon precision and accuracy data derived during methods development and verified in second laboratory validation.

^b To be determined.

a. New Methods for Use in Screening Survey One

This section includes summaries of the three analytical methods for use for the chemicals included in the Screening Survey in 2001 and 2002. Tables 2 and 3 list the contaminants and new methods. The details of these methods and the results of their peer reviews are documented in Water Docket W-00-01.

(i) *Summary of EPA Method 532.0: Determination of Phenylurea Compounds in Drinking Water by Solid Phase Extraction and High Performance Liquid Chromatography with Ultraviolet Detection.* Today, EPA establishes the use of EPA Method 532.0 to analyze for diuron and linuron. Under this method, a 500 milliliter volume of water is extracted on a chemically bonded C¹⁸ cartridge or disk, extracted with a small amount of methanol, and the resulting extract injected into a high performance liquid chromatographic (HPLC) system equipped with a C¹⁸ column and a UV detector. All positive results are

confirmed using a second, dissimilar HPLC column.

• *Refinements from Previous Methods.* While linuron and diuron are included in the scope of NPS Method 4 (LLE/HPLC/UV) and EPA Method 553 (SPE/HPLC/MS), these methods were determined to be inappropriate for this monitoring. NPS Method 4 uses mercuric chloride for biological stabilization, does not contain any reagents to reduce disinfectant residuals, and requires the extraction of 1 liter water samples with 180 mL of methylene chloride. EPA Method 553 does not include biological stabilization, and requires the use of a HPLC/MS equipped with a particle beam interface. EPA Method 532, copper sulfate is used to biologically stabilize samples, rather than the toxic compound mercuric chloride, solid phase extraction of 500 mL samples, rather than extracting one liter samples with methylene chloride results in a significant reduction of solvent. In addition, analysis is conducted by performing separation and

detection using more commonly available HPLC/UV instrumentation, rather than particle beam interfaces which are no longer manufactured.

(ii) *Summary of EPA Method 528: Determination of Phenols in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS).* Under this final regulation, EPA requires the use of EPA Method 528 to analyze for 2-methyl-phenol, 2,4,6-trichlorophenol, 2,4-dichlorophenol, and 2,4-dinitrophenol. Under this method, a 1 liter water sample is extracted on a solid phase extraction cartridge containing 0.5 grams of a modified polystyrene divinyl benzene solid phase which is eluted with a small amount of methylene chloride. The resulting extract is then analyzed using a capillary column equipped with GC/MS.

• *Refinements from Previous Methods.* EPA Method 552 lists 2,4-dichlorophenol and 2,4,6-trichlorophenol as an analyte; however,

under the conditions specified, the analytes interfere with one another. Other methods evaluated required the use of techniques that are no longer used in modern laboratories such as large volume solvent extraction, acid, base/neutral fractionation, and were developed for packed column chromatography. In addition, no documentation of either aqueous or extract analyte stability was available.

In EPA Method 528, sample extractions are performed using solid phase extraction without fractionation, capillary column separation without the need to derivatize the analytes, and uses mass spectrometry to reduce false positives. Samples are biologically preserved through acidification and disinfectant residuals are reduced with sodium sulfite.

(iii) *Summary of EPA Method 526: Determination of Selected Semivolatile Organic Compounds in Drinking Water by Solid Phase Extraction and Capillary Column GC/MS.* Under this final regulation, EPA requires the use of EPA Method 526 to analyze for 1,2-diphenylhydrazine, diazinon, disulfoton, fonofos, prometon, nitrobenzene, and terbufos. Under this method, a 1 liter sample is extracted on a chemically bonded styrene divinyl benzene organic phase cartridge or disk. The cartridge or disk is eluted with small quantities of ethyl acetate followed by methylene chloride. The resulting extract is then analyzed on a capillary column equipped GC/MS.

• *Refinements from Previous Methods.* While several of the analytes included in EPA Method 526 are also listed as analytes in EPA Method 507, EPA Method 508, EPA Method 525.2 and other methods, accurate and precise measurement of these analytes in stored samples is not achieved, because of extremely rapid aqueous degradation of these analytes. Literature searches and data collected during methods development of EPA Method 526 demonstrated that many of these analytes are subject to both acid and base catalyzed hydrolysis and that this hydrolysis is also catalyzed by the presence of metals. These compounds are also subject to biological degradation in stored samples, and degradation by free chlorine. In EPA Method 526, reagents are added to all samples to stabilize the analytes. This includes a buffer to neutralize pH, EDTA to complex metals, a biocide to stabilize analytes against biological degradation, and a reagent to reduce disinfectant residuals. Using these reagents, analyte stability has been demonstrated. In addition, all of these reagents can be added to the sample bottles prior to

their shipment to the sample collection site.

(iv) *Peer Review.* EPA conducted peer reviews of the analytical methods made final today. The peer reviews were conducted both within EPA and by personnel from Montgomery Watson Laboratories, Philadelphia Suburban Water Company, and the American Water Works Service Company. Summaries of these reviews and EPA responses to them are available at the Water Docket (MC 4101), U.S. EPA, 401 M Street, SW, Washington DC 20460, Docket number W-00-01.

(v) *Laboratory Approval and Certification.* Laboratories currently certified to conduct drinking water compliance monitoring using EPA Method 525.2 are automatically approved to conduct UCMR analysis using EPA Methods 526 and/or 528. Laboratories currently certified to conduct drinking water compliance monitoring using EPA Methods 549.1 or 549.2, are automatically approved to conduct UCMR analysis using EPA Method 532. As noted earlier, EPA Method 525.2 is a solid phase extraction GC/MS method as are both EPA Methods 526 and 528. EPA Methods 549.1 and 549.2 are solid phase extraction HPLC methods as is EPA Method 532. Using this system of laboratory approval for the UCMR ensures that the laboratories that perform these analysis are currently certified to perform compliance monitoring with methods that use the same technologies as those incorporated in the UCMR methods, while providing PWSs with the widest possible source of approved laboratories.

For small systems, EPA conducted a competitive solicitation to select laboratories to analyze for List 2 contaminants under contract to EPA. All small system shipping and analysis costs will be paid by EPA.

b. Monitoring Nitrobenzene at Low-Level in Screening Survey One

One comment was received on the proposed rule concerning the monitoring of nitrobenzene in both the Assessment and Screening phases of the UCMR. The commentor questioned EPA's retention of a much less sensitive analytical method to test for nitrobenzene under the initial Assessment Monitoring, when nitrobenzene will be measured by a method that is 100 times more sensitive during the Screening (List 2) Monitoring. The commentor added that restricting nitrobenzene to List 2 contaminant monitoring avoids a redundant and costly element in Assessment Monitoring, while

providing a statistically significant estimation of occurrence that could, if warranted, trigger more comprehensive monitoring.

EPA believes that nitrobenzene can be reliably and accurately measured at concentrations above 10 µg/L using the purge and trap GC/MS methods approved for use in the Assessment Monitoring phase of the UCMR. Even though currently available preliminary health effects information suggests that nitrobenzene may be of concern at concentrations lower than can be reliably measured using purge and trap GC/MS methods, nitrobenzene was nonetheless included in the monitoring required under Assessment Monitoring since methods reliably measuring nitrobenzene at lower concentrations were not then available. In addition, since the same purge and trap GC/MS methods were being approved of the analyses of other compounds in the assessment phase of the UCMR monitoring, monitoring for nitrobenzene using these methods could be accomplished at very little additional cost to the regulated utilities, States, or EPA. Therefore, EPA felt it was prudent to require this monitoring to obtain valid national occurrence data for this compound.

Since health effects information under current review indicates that nitrobenzene may be of concern at concentrations lower than that measured under Assessment Monitoring, EPA also included nitrobenzene in the list of compounds for which additional methods development was required (List 2 compounds). The analytical method (EPA Method 526) developed for the analyses of diazinon, disulfoton, fonofos, 1,2-diphenylhydrazine, and prometon can also reliably measure nitrobenzene at considerably lower concentrations than can the purge and trap methods approved for the analyses of nitrobenzene under Assessment Monitoring. EPA Method 526 was not available at the time that methods were approved for the Assessment. Therefore, EPA is retaining the required monitoring for nitrobenzene in the Assessment Monitoring phase of the UCMR using the previously approved purge and trap GC/MS methods to collect national monitoring data, but it is also requiring monitoring for nitrobenzene in this Screening Survey phase of the UCMR using EPA Method 526. This will permit the Agency to obtain substantial amounts of occurrence data for nitrobenzene at concentrations above 10 µg/L through UCMR assessment monitoring and a statistically significant estimate of

nitrobenzene at much lower concentrations with the Screening Survey monitoring, and yet not impose additional substantial cost burdens on affected entities. Including nitrobenzene under both Assessment Monitoring and the Screening Survey may also eliminate the need for future UCMR monitoring of nitrobenzene.

c. Monitoring of *Aeromonas* in Screening Survey Two

Under today's action, EPA is approving the proposed monitoring plan for *Aeromonas* as part of Screening Survey Two, to be conducted by 180 small systems and 120 large systems beginning in 2003. Many of the options for monitoring *Aeromonas* were discussed in the proposed rule published on September 13, 2000 (65 FR 55362). As part of this final rule, EPA is reserving the method for *Aeromonas*, and expects to promulgate EPA Method 1605 in 2001 (briefly summarized below) for monitoring *Aeromonas* for Screening Survey Two.

Analytical Method. The proposed *Aeromonas* spp. method in the proposed rule for List 2 monitoring was EPA Method 1605, which is a membrane filter assay based on the ampicillin-dextrin agar (ADA) method of Havelaar *et al.* (1987), with two additional tests for confirmation: cytochrome oxidase and trehalose fermentation. Proposed EPA Method 1605, "Determination of *Aeromonas* in Water", is currently available on-line at <http://www.EPA.gov/nrlcwww/1605sp00.pdf> or by contacting the Safe Drinking Water Hotline at (800) 426-4791; however, the final approval of the method and minimum reporting level will be reserved until promulgated in a subsequent method update rule. This proposed method identifies *Aeromonas* to the genus level and detects *A. hydrophila* and a majority of the other aeromonad species. Laboratories wishing to analyze samples for *Aeromonas* for the UCMR must use the final approved EPA Method 1605 after it is promulgated. *Aeromonas* analyses must be performed by laboratories certified under § 141.28 for compliance analysis of coliform indicator bacteria using an EPA approved membrane filtration procedure. Because of differences between Method 1605 and existing membrane filtration methods, laboratories performing EPA Method 1605 must also participate in performance testing (PT) studies to be conducted by EPA. EPA received five comments regarding performance testing (PT) for *Aeromonas*. EPA has decided once the method is published as final, to require laboratories that

analyze samples for *Aeromonas* to participate in a PT program. Laboratories wishing to participate in the *Aeromonas* PT program and be approved must submit a "request to participate" letter to EPA. EPA has established a tentative time of late 2001 and early 2002 by which to receive the "request to participate" letter, contingent on the publication of the final *Aeromonas* method. EPA will publish further information on the *Aeromonas* PT program for potential participants at the time it promulgates the final method. Any interested laboratory which does not apply for participation or fails to successfully pass the initial PT study but still wishes to support this monitoring, will need to submit a request letter at a later time that will be specified with the promulgation of the final method to be eligible for the second or third PT study. Upon completion of the *Aeromonas* PT Program, EPA will provide each successful laboratory with an approval letter identifying the laboratory by name and the approval date. This letter may then be presented to any Public Water System (PWS) as evidence of laboratory approval for *Aeromonas* analysis supporting the UCMR. Laboratory approval is contingent upon the laboratory maintaining certification to perform drinking water compliance monitoring using an approved coliform membrane filtration method.

EPA Method 1605 identifies *Aeromonas* to the genus level, but does not distinguish between pathogenic and nonpathogenic types. To obtain additional information on *Aeromonas* strains detected with Method 1605, isolates from the ADA plates will be tested for taxonomic characteristics that are associated with pathogenic clinical isolates in follow-up tests conducted by EPA or an EPA contractor. EPA will do these additional analyses for small and large systems that have confirmed positive colonies of *Aeromonas* (see proposed § 141.40(a)(3), Table 1, List 2, footnote j). Confirmed *Aeromonas* colonies must be archived by analytical laboratories performing Method 1605, and shipped to EPA. The Agency will arrange to have additional analyses done on isolates to determine the hybridization groups that are associated with pathogenic forms.

Analytical Method for Determining Hybridization Groups. The phenotypic method described by Abbott *et al.*, (1992) will be used to identify the hybridization group of each isolate. These investigators described a group of biochemical tests that were able to place 132 of 133 *Aeromonas* isolates in the correct hybridization group. The use of

biochemical tests to determine hybridization groups of *Aeromonas* is well established (Borrell *et al.*, 1998, Altwegg *et al.*, 1990 and others). EPA may also use restriction fragment length polymorphism (RFLP) for hybridization group identification.

Sampling Times and Locations. As included in EPA's proposal at § 141.40(a)(5)(ii)(B), Table 3, Monitoring Frequency by Contaminant and Water Source Types, EPA is requiring, once the method is promulgated as final, that systems monitoring for *Aeromonas* under Screening Survey Two sample six times during the year, once per quarter during the cooler seasons and once per month during the warmest (vulnerable) quarter, unless the EPA or the State designates a different vulnerable period. This results in one of three sampling schemes: (1) January, April, July, August, September, and October, (2) February, May, July, August, September, and November, or (3) March, June, July, August, September, and December, unless the EPA or State designates a different vulnerable period. Public comments received asked for an option for greater flexibility in setting the sampling schedule for the warmest (vulnerable) month. These sampling times have been revised in response to comments received. At each sample time, three samples must be taken from the distribution system owned or controlled by the PWS selected to monitor. In response to public comments, consecutive systems are no longer included for this monitoring in the distribution system for *Aeromonas*. Sampling locations must include one midpoint in the distribution system where the disinfectant residual will be expected to be typical for the system (midpoint, or MD, as defined in the Rule), and two other points: One of maximum retention time and one where the disinfectant residual will have typically declined (point of maximum residence, or MR, and location of lowest disinfectant residual or LD, respectively, as defined in the Rule). Each sample analyzed for *Aeromonas* will be considered to be an individual data point and will not be averaged with values determined for other samples.

Sites selected for *Aeromonas* samples may utilize locations identified for certain other contaminants which may occur under similar conditions to those described for *Aeromonas*. Sampling for coliform indicator bacteria, which includes midpoint samples, is described in 40 CFR 141.21. Compliance monitoring samples for coliform bacteria are taken from a variety of locations through the distribution system. Some of these samples are from

locations where the disinfectant residual is representative of the distribution system and will not have significantly declined. Locations specified in the sample plan for coliform bacteria that meet this description may be used for the *Aeromonas* midpoint sample. Additionally, a sample must be taken from a location in the distribution system where the disinfectant residual is expected to be low, which is similar to total trihalomethane (TTHM) sample points. Sample locations for TTHMs are described in 63 FR 69468 (1998), the Disinfectants and Disinfection Byproducts Rule, and 40 CFR 141.30. These sample locations must be at distal parts of the distribution system (taking care to avoid disinfectant booster stations) or dead ends, or locations which had previously been determined to have the lowest disinfectant residual. Ground water systems that do not disinfect may utilize the same distal sample locations as those that disinfect. Additional information on *Aeromonas* occurrence in relation to retention time or disinfectant residual are given in Havelaar *et al.*, 1990, Burke *et al.*, 1984, Gavriel *et al.*, 1998, Holmes and Nicolls, 1995. These studies suggest that *Aeromonas* is more likely to occur where the disinfectant residual has declined to less than 0.3 mg/L or where the residence time in the distribution system is longest. Stelzer *et al.* (1992) found *Aeromonas* more commonly at distances greater than 10 km from the treatment plant. Holmes *et al.* (1996) reported after growth of *Aeromonas* in part of a distribution system where the retention time of treated water could exceed 72 hours.

Sample location descriptions for large distribution systems may not be applicable for small systems (or ground water systems that do not disinfect). In the event that the midpoint and distal or low disinfectant residual sample locations described for larger systems do not apply, small systems may use a coliform sample location, and two samples at the farthest point(s) from the source water intake.

Water Quality Parameters Required for *Aeromonas* Samples. The water quality parameters identified in § 141.40(a)(4)(i)(B), Table 2, Water Quality Parameters to be Monitored with UCMR Contaminants, must be analyzed and reported for the microbiological contaminant on List 2, *Aeromonas*, once its analytical method is final and ready for use. These parameters include water pH, turbidity, temperature, and free and total disinfectant residual.

d. Exclusion of RDX, and Alachlor ESA and Other Acetanilide Pesticide Degradation Products From Monitoring Under Screening Survey at This Time

Not all of the contaminants included in the UCMR (1999) List 2 in the final UCMR Rule (64 FR 50556) are activated for Screening Survey monitoring by this rule. In the proposal for this final rule, EPA identified many important issues, including the development of appropriate analytical methods, that must be resolved before monitoring can be conducted for RDX and Alachlor ESA. The public comments that were received supported the reserve status for these methods and contaminants at this time. The methods for these contaminants (as well as all the List 3 contaminants identified in the September 1999 Revisions to the UCMR) are currently under development and it is not certain when these methods will be completed. If these methods are still in development in December 2001, EPA will consider including these contaminants in the next five-year cycle of UCMR, rather than proposing their methods during this first five-year UCMR cycle.

e. Movement of Polonium-210 From UCMR (1999) List 2 to UCMR (1999) List 3

With today's action, EPA is removing the radionuclide polonium-210 from List 2 of the UCMR (1999) List and moving it to List 3. As discussed in the proposal, many issues still need to be addressed before monitoring is required for this contaminant. Public comments supported moving polonium-210 to List 3. In particular, additional development and validation work is needed before possible methods can be used for routine drinking water analysis. Furthermore, there are laboratory capacity and capability concerns, as an appropriate method for polonium-210 may be very time consuming and will likely require an experienced analyst. Unlike RDX and alachlor ESA, for which analytical methods are available but are being refined, the methods for polonium-210 are not yet at a sufficient point to be used for drinking water analyses, let alone be refined for routine application. Thus, for drinking water analyses, the methods still require development, peer review and EPA approval. As a result, polonium-210 is more appropriately placed on List 3. The movement of polonium-210 from List 2 to List 3 is reflected in § 141.40(a)(3), Table 1, List 3.

3. All List 2 Monitoring at Entry Points to the Distribution System

Today's action also modifies § 141.40(a)(7), which addresses monitoring for List 2 contaminants, to clarify that all List 2 monitoring for chemical contaminants in Screening Survey One must be done at entry points to the distribution system (EPTDS). Public comment supported this approach. The only exception to this requirement for EPTDS sampling is where the EPA or State determines that no treatment or processing is in place between the source water and the EPTDS that would affect measurement of the contaminants involved. Under Assessment Monitoring, systems that routinely sample at source (raw) water sampling points are allowed to sample List 1 contaminants at those points until an unregulated chemical contaminant is found. After such a detection, the system must generally initiate monitoring at the entry points to the distribution system for those contaminants detected. For monitoring for List 2 contaminants, however, EPA believes that allowing such flexibility in sampling locations would jeopardize the consistency of the data generated by the Screening Surveys. Specifically, the revisions to § 141.40(a)(7) specify that List 2 chemical contaminant monitoring must be at the entry point to the distribution system for all systems, to provide for consistent results nationally. In addition, EPA is specifying that List 2 monitoring must be conducted over 1 year (2001 for the first Screening Survey of small systems and 2002 for the first Screening Survey of large systems), rather than any 12 months over the 3-year period, as with List 1 Assessment Monitoring.

4. Implementation

a. Coordination of Assessment Monitoring and Screening Surveys

While EPA has not modified the regulation for coordination of Assessment Monitoring of List 1 and Screening Surveys for List 2, such coordination, to the extent possible, is an important aspect of the UCMR program. For small systems that are required to conduct both Assessment Monitoring and Screening Survey One for chemicals during 2001, the timing and location of sampling will be the same. The one exception will occur for systems that are collecting their Assessment Monitoring samples from source (raw) water sampling points. Sampling locations for Assessment Monitoring and Screening Survey One for chemicals will not coincide for these systems, because all Screening Survey

One samples must be collected from the entry points to the distribution system. Note that not all small systems conducting Assessment Monitoring in 2001 were selected for Screening Survey monitoring, but for those that are, this is clearly indicated in the UCMR State Monitoring Plans for small systems. For large systems serving more than 10,000 persons, the systems randomly selected for Screening Survey One must carry

out the monitoring for that survey in 2002.

Assuming the method to analyze for *Aeromonas* is published as final, large and small systems selected for the Screening Survey Two for *Aeromonas* must monitor for that microorganism in 2003. This second Screening Survey does not coincide with Assessment Monitoring from the standpoint of sampling time and location. However, the monitoring for *Aeromonas* is only

being conducted at 300 large and small systems in 2003, which has a limited effect on the systems overall. This is a one time, one-year survey, specific to *Aeromonas*, which is being conducted with the expectation that it will provide a nationally consistent result. Figure 1 provides a timeline for implementation of the UCMR, including the Screening Survey for List 2 contaminants.

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Figure 1 Implementation Timeline for UCMR (1999): Public Water Systems

| UCMR Implementation Timeline | | | | | |
|---|---|---|------|---|------|
| 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Large Systems (serving more than 10,000 people) | | | | | |
| <p><i>List 1 Assessment Monitoring - All Large Systems</i> must monitor for one year during this three-year period. Data must be reported electronically to EPA.</p> | | <p><i>List 2 Screening Survey Chemicals</i> 120 randomly selected large systems must monitor.</p> | | <p><i>List 2 Screening Survey Aeromonas</i> Second set of randomly selected 120 large systems must monitor.</p> | |
| Small Systems (serving 10,000 or fewer people) | | | | | |
| <p><i>List 1 Assessment Monitoring - 800 Small Systems</i> (statistically selected) must monitor for one year during this three-year period, as specified by the State and EPA. Approximately one-third monitor each year. EPA pays for the costs of testing.</p> | | <p><i>List 2 Screening Survey Chemicals</i> 180 randomly selected small systems must monitor; subset of systems doing List 1 monitoring during this year.</p> | | <p><i>List 2 Screening Survey Aeromonas</i> Second set of 180 randomly selected small systems must monitor; subset of systems doing List 1 monitoring during this year.</p> | |
| <p>Index Systems 30 Index Systems (randomly selected from the 800 small systems) must monitor every year for List 1 contaminants during this five-year period, with additional support from EPA.</p> | | | | | |
| All Systems Conducting UCMR Monitoring | | | | | |
| <div style="border: 1px solid black; padding: 5px; width: fit-content;">Systems notified of requirements by EPA/State</div> | <p>Reporting - All Large and Small Systems Monitoring for List 1 and List 2 Contaminants must report results to public under the Consumer Confidence Rule or Public Notification requirements.</p> | | | | |
| <div style="border: 1px solid black; padding: 5px; width: fit-content;">Perchlorate Laboratory Proficiency Testing</div> | | | | | |

b. Selection of Systems by Water Source and Size

EPA selected the systems required to conduct List 2 monitoring from the approximately 2,800 large systems and 800 small systems previously identified by EPA for Assessment Monitoring. One hundred twenty (120) large systems and 180 small systems were randomly selected to monitor for each Screening Survey (i.e., both Screening Survey One for chemicals and Two for *Aeromonas*), approximately based on the following allocation:

| System size (persons) | Water source | |
|------------------------------|--------------|---------------|
| | Ground water | Surface water |
| 25–500 | 30 | 30 |
| 501–3,300 | 30 | 30 |
| 3,301–10,000 | 30 | 30 |
| 10,001–50,000 | 30 | 30 |
| 50,000 or more persons | 30 | 30 |

This allocation was designed to ensure adequate coverage in both small and large system size and the source water categories. The final selection of Screening Survey systems may vary from this allocation, given the logistical adjustments that some States had to make to their State Monitoring Plans.

c. Sampling Period, Location and Frequency

For small systems serving 10,000 or fewer persons, monitoring for List 2 chemicals is to be conducted in 2001 (Screening Survey One for chemicals), which is also the first year of Assessment Monitoring. EPA will pay for sample shipping, testing, and reporting for small systems. EPA expects to evaluate both the occurrence and the analytical methods used for List 2 contaminants at this time. If adjustments to the methods need to be made before large systems are required to monitor in 2002, EPA has time to make these changes before large systems conduct Screening Survey One monitoring. Large systems serving more than 10,000 persons are required to conduct monitoring in 2002. Once the analytical method is promulgated, the monitoring for *Aeromonas* in Screening Survey Two is to be conducted by all selected small and large systems in 2003.

The sampling location for the chemical contaminants on List 2 is the entry point to the distribution system. For *Aeromonas*, the sampling locations are three places in the distribution system, which is owned or controlled by the selected PWS, representing: (1) A point (midpoint (MD) in the distribution

system from § 141.35(d)(3), Table 1) where the disinfectant residual is representative of the distribution system. This sample location may be selected from sample locations which have been previously identified for samples to be analyzed for coliform indicator bacteria. Coliform sample locations are described in 40 CFR 141.21. This same approach must be used for the *Aeromonas* midpoint sample where the disinfectant residual would not have declined and would be typical for the distribution system; (2) The distal or dead-end location in the distribution system (point of maximum retention (MR) furthest from the entry point to the distribution system from § 141.35(d)(3), Table 1), avoiding disinfectant booster stations; and (3) A location where previous determinations have indicated the lowest disinfectant residual in the distribution system (point where the disinfectant residual is lowest (LD) from § 141.35(d)(3), Table 1). If these two locations of distal and low disinfectant residual sites coincide, then the second sample must be taken at a location between the MD and MR sites. Locations in the distribution system where the disinfectant residual is expected to be low are similar to TTHM sampling points. Sampling locations for TTHMs are described in 63 FR 69468.

The frequency of sampling for chemical contaminants on List 2 is the same as for List 1 Assessment Monitoring: four consecutive quarters for surface water systems and two times six months apart for ground water systems, with one of these sampling events (for both water source types) during the vulnerable time specified by EPA in the rule, or by the State in its State Monitoring Plan. For *Aeromonas*, sampling frequency is six times during the year 2003: during the same month (first, second or third month) selected by the system in each quarter, and each month during the warmest quarter (July, August and September, or other vulnerable (warm) period designated by EPA or the State). Additionally, a footnote was added to the year 2003 in column 6 (Table 1, List 2), "Period During Which Monitoring to be Completed," indicating that the monitoring period is contingent on promulgation of the analytical method and minimum reporting level for *Aeromonas*.

d. Sample Analysis

Large systems will sample and send their samples to the EPA certified laboratory of their choice and report the results to EPA as specified in § 141.35. Large systems will pay for the cost of

the shipping, testing, and reporting of the results. At small systems, unless the State has agreed to collect the samples for small systems, the owner or operator will collect the sample in EPA-provided equipment. EPA will pay for the shipment, analysis of the samples, and reporting of test results for small systems.

Large systems selected for the Screening Survey will be notified by the State or EPA at least 90 days before the dates established for collecting and submitting samples to determine the presence of contaminants on List 2. One commentor expressed concern over the timing of this notification, noting that systems need adequate time to properly coordinate with contract laboratories. EPA notes that it intends (with assistance from partner States) to provide notification more than 120 days in advance and that 90 days would be the minimum.

e. Reporting

Systems are responsible for reporting the results of UCMR monitoring to EPA, with a copy to the State in a format specified by EPA, through their analytical agent or laboratory, within 30 days following the month in which the results are received from the laboratory. EPA will allow an additional 60 days for system, State, and EPA quality control review before posting the results to the National Drinking Water Contaminant Occurrence Database (NCOD) portion of the Safe Drinking Water Information System. Additionally, EPA has modified the regulation in response to comments about the readiness of the electronic reporting system. Systems will not be required to submit data until September 30, 2001 for the first two quarters of calendar year 2001, but may begin reporting as early as July 1, 2001. EPA has modified § 141.35(c) to reflect this change and provide sufficient time for the reporting system to be ready to accept results.

EPA contract laboratories will generate small system results and will report the data directly into the EPA system. EPA will provide small systems the opportunity to conduct a 30-day quality control review of their results before EPA reports them to the NCOD and before the 60-day quality control review by systems and States. During this 60-day period, EPA will also conduct its own quality control review.

Figures 2 and 3, below, illustrate the UCMR monitoring approach, as well as the timeline for implementation of the first cycle of UCMR monitoring.

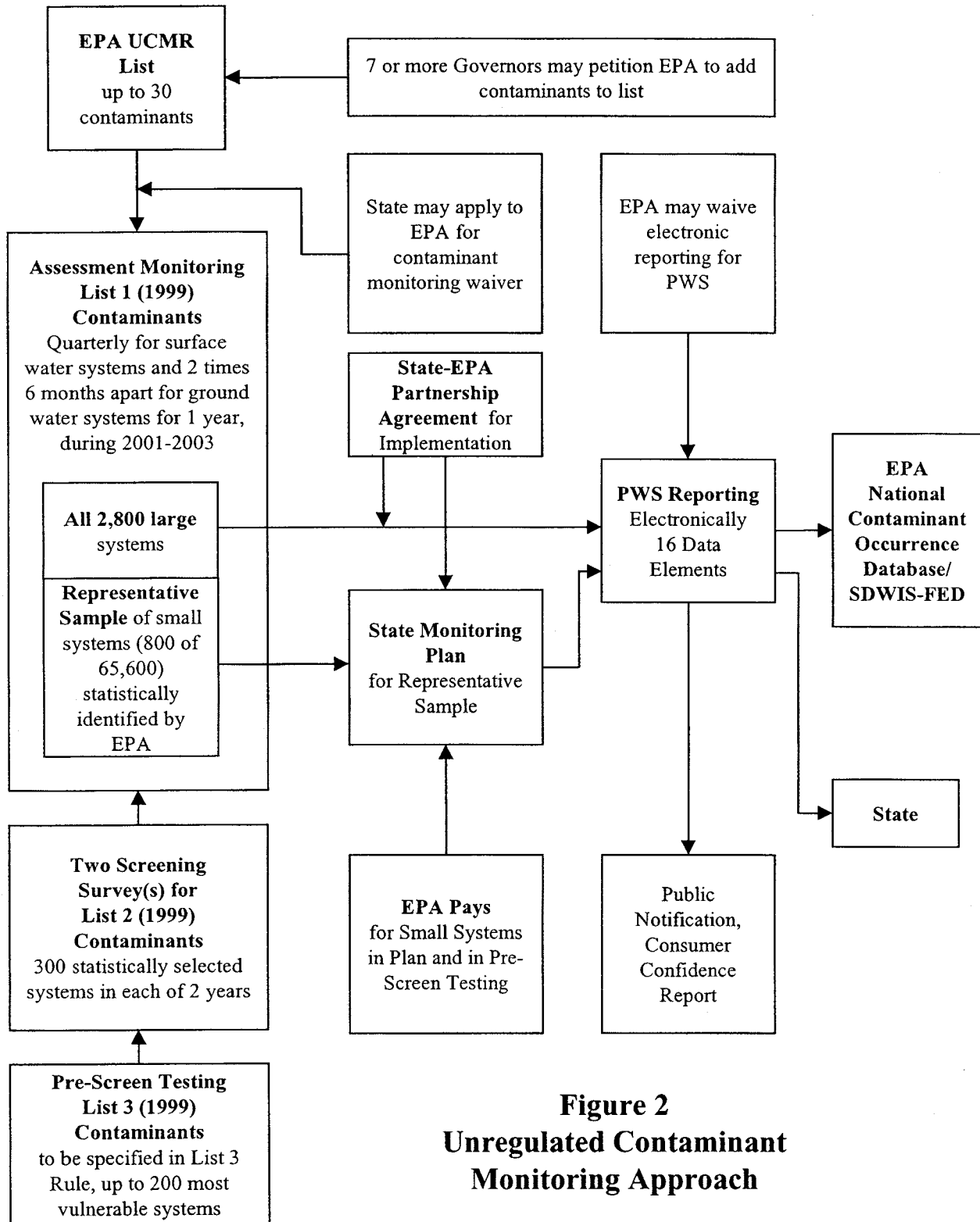
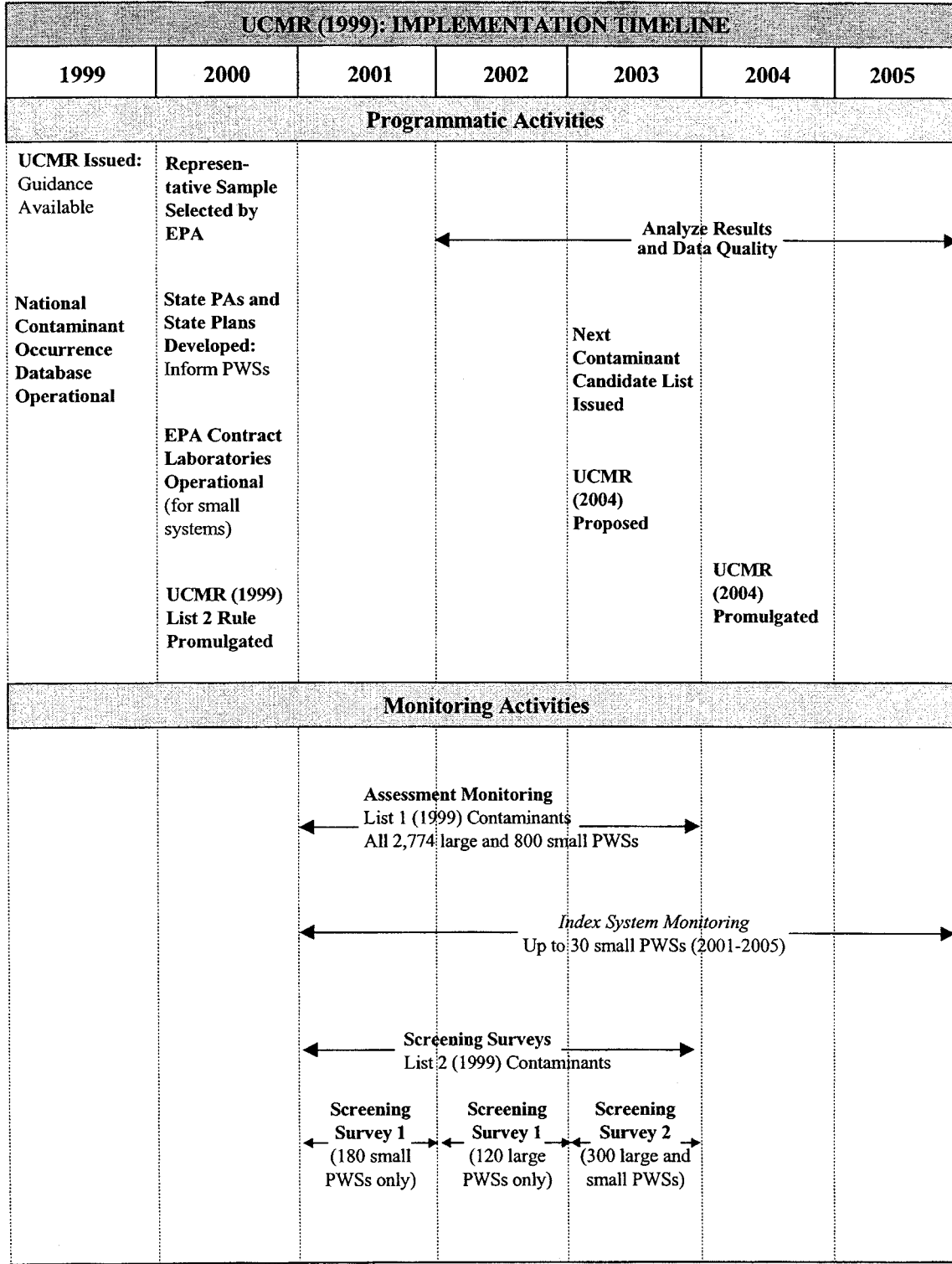


Figure 2
Unregulated Contaminant
Monitoring Approach

**Figure 3
Implementation Timeline of UCMR (1999) and Related Activities**



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D. Other Technical Changes and Clarifications to the UCMR (40 CFR 141.40)

List 1 and List 2 contaminants beginning in 2001.

Changes described in this section will affect monitoring and reporting for both

1. Updating the National Drinking Water Contaminant Occurrence Database

EPA modified § 141.35(c) to recognize the updating cycle of the National Drinking Water Contaminant Occurrence Database (NCOD). The existing rule provides for placing the data reported to EPA by systems in the NCOD after a 60-day quality control review period. Today's final rule will continue to provide for the 60-day quality control review by systems, States and the Agency. However, today's rule requires that EPA place the available unregulated contaminant occurrence data resulting from UCMR monitoring in the NCOD at the time of each update of the database, which currently is on the same quarterly update cycle as the Safe Drinking Water Information System. Since updating the databases incurs costs, being able to coordinate this update with an existing update process provides a lower level of expenditure for database maintenance. The NCOD will be updated four times per year, rather than six times. Public comments supported this reporting process. Because these data are for long-term analytical purposes, this change should not inhibit their principal use for regulatory determination and development. The data will still be regularly available to the public through the NCOD. The results of detections of unregulated contaminants is also required to be reported by PWS to consumers through consumer confidence reports.

2. Reporting System and Laboratory Contacts

Section 141.35(d) identifies the data elements to be reported with UCMR contaminant monitoring results. In the process of initiating implementation of the UCMR, including discussions with stakeholders, EPA realized that to facilitate communication in a rule for which EPA had direct implementation responsibility, the agency needed points of contact with public water systems and their analytical agents or organizations (laboratories). In today's final rule, EPA is amending § 141.35(d) to clarify that systems must provide "point-of-contact" information. Today's action amends the UCMR to require systems and laboratories to provide the following information: name, mailing address, phone number, and email address for: (1) PWS technical person (i.e., the person at the PWS who is responsible for the technical aspects of UCMR activities, such as details concerning sampling and reporting); (2) PWS official UCMR spokesperson (i.e., the person at the PWS who is able to

function as the official spokesperson for the PWS); and (3) laboratory contact person (i.e., the person at the laboratory who is able to address questions concerning the analyses performed). Systems are asked to update this information if it changes during the course of UCMR implementation. The information will be used to facilitate: communication with PWSs and labs regarding any reporting system problems/modifications; resolution of specific data questions; and periodic distribution of any related materials. Public comments supported this technical change.

3. Modification of Data Element Definitions

With today's rule, EPA made minor changes in nine data element definitions, in response to comments received on the final UCMR during implementation workshops and to clarify what is to be reported. These data elements are: PWS facility identification number, sample identification number, sample analysis type, sample batch identification number, analytical precision, analytical accuracy, detection level, detection level unit of measure, and presence/absence. The changes appear in § 141.35, Table 1. The clarifications are as follows:

(a) PWS facility identification sampling point number is now to be a two-part number, made up of the PWS facility identification number and a unique sampling point number within the PWS and assigned by the State, as well as the sampling point type, to allow for relationships between sampling points and other facilities to be reported and maintained, and for appropriate analyses to be made.

(b) Sample identification number has been changed to specify a sample or group of samples that are collected at the same time and place.

(c) Sample analysis type has been modified to address raw and treated field and duplicate samples to ensure that the full range of sample types can be reported.

(d) Sample batch identification number has been changed to clarify that an extraction or an analysis batch number are to be reported along with the laboratory identification number and analysis date.

(e) Analytical accuracy and analytical precision have both been modified to clarify the meaning of each variable identified in the current equations.

(f) EPA modified and eliminated reporting of the detection level and detection level unit of measure to provide additional reporting flexibility.

EPA is requiring the reporting of "minimum reporting level" and "minimum reporting level unit of measure," in the data elements. PWSs are required to report all detections occurring at or above the minimum reporting level (MRL). Several commentors were concerned about allowing laboratories to establish their own minimum reporting levels (MRL) as long as they are lower than the UCMR MRL for that analyte. Five comments were received questioning the usefulness of data reported below the UCMR MRL and wondered if it would defeat the purpose of setting standardized MRLs. EPA agrees with the commentors and has changed the final regulation to remove the option for reporting of data below the UCMR MRL.

(g) The presence/absence data element is being reserved for potential future use. All of the contaminants currently being monitored can be accurately and precisely quantified. Therefore, their presence or absence does not need to be reported; however, the data element is not deleted. This data element is being reserved for future contaminants to permit the use of presence/absence measured if warranted in future regulations.

Special Note on PWS Facility Identification Number. Table 1 of Section 141.35 previously required that the same PWS Facility Identification Number be used consistently throughout the history of unregulated contaminant monitoring to facilitate analysis of the data. States are already required to number and report to EPA water source intakes and treatment plants, but there is no requirement to hold those numbers static, or even to store them in the State's database. EPA is aware that States converting to the State version of the Safe Drinking Water Information System (SDWIS/STATE) will have new numbers assigned to PWS facilities within that State. Other States converting to other databases during the next several years may face a similar problem. It may be less burdensome on the State to be able to change the number, but the State must report what number the new number is replacing so that SDWIS/FED can link the two for historical tracking. As a result, EPA is including additional flexibility in this definition to allow tracing of historical to current facility identification numbers.

4. Clarification of Data Reporting Procedures

EPA also modified § 141.35 to improve the electronic process that EPA intends to implement for the large amount of data that is expected to be

reported under the UCMR. As EPA evolves its electronic reporting approach Agency-wide, EPA is trying to learn from lessons of such streamlining in the past. Specifically, the electronic reporting that occurred under the Information Collection Rule resulted in a process whereby laboratories entered data electronically using their own formats, provided a hard copy of the report to the public water system, and then the system reentered the data to an electronic disc which was sent to EPA. This resulted in rekeying (data entry) errors and transmission errors, including loss of discs (through mail or damage). EPA is moving toward a "one-entry" approach for data reporting. This will improve reporting quality and reduce reporting errors and reduce the time involved in investigating, checking and correcting errors at all levels (laboratory, system, State and EPA). This one-entry approach will make the data more useful and available earlier.

In light of these electronic reporting developments and experiences, EPA modified § 141.35(e) and (f) to clarify its format for reporting and to indicate that a system must instruct the agent or organization that conducts the testing and laboratory analysis for the unregulated contaminants (herein after referred to as "the laboratory") to enter the data into the UCMR electronic reporting system. EPA is developing a template for electronically reporting UCMR results to the Agency. The template will allow a PWS regulated by the UCMR to review and approve submission of the results to EPA. The template is being developed in both direct "batch" electronic data transfer and web-based "manual" entry formats. If the laboratory cannot enter the monitoring results using EPA's direct or manual electronic reporting system, then the PWS must explain to EPA in writing the reasons why alternate reporting is necessary and must receive EPA's approval to use an alternate reporting procedure. To ensure security, laboratories and public water systems will need to register to have access to the UCMR database. Registration will begin after January 16, 2001. EPA will provide systems with information on the registration process. During the PWS registration process, the PWSs will have the opportunity to review and correct relevant PWS inventory information. (Questions may be directed to the Safe Drinking Water Hotline, 1-800-426-4791.)

In addition to reporting analytical results, such data entry also includes the sample collection and PWS information specified in Table 1 of § 141.35.

A public water system has choices for reporting the data to EPA:

(a) The public water system can instruct its analytical agent (laboratory) to electronically report its UCMR results to EPA on the system's behalf. The lab can use either the batch transfer protocol or the web-interface data entry template that EPA will make available over the internet. After the data are submitted by the lab, the PWS can review the results on-line and electronically indicate its approval. Only after the system has submitted the approved data to EPA, and final quality reviews are completed, will the results be available for Agency decision-making or public review.

(b) Systems may require their laboratories to receive their approval before the laboratories report the UCMR results to EPA. In this case, the PWS can review the results prior to the laboratory reporting the data to EPA's electronic reporting system through its own arrangements for receiving data from the laboratory. Typically, the laboratory has already entered the data into its electronic laboratory information management system (LIMS). Once the laboratory receives approval to submit the data from the PWS, it could electronically send the data in batch form from its LIMS to EPA's electronic reporting system.

(c) A system may determine that its laboratory does not have the capability to report electronically (even through entering the data on the web-based screen format) or does not have the capability to provide data to the system prior to submitting it to EPA without rekeying. In this case, the system may submit a request to EPA to use an alternate reporting format.

Under any circumstances, the results must be submitted to EPA within 30 days following the month the PWS receives the results. EPA received comments expressing concern with the reporting deadline relative to the first UCMR sampling in 2001. Commentors were concerned that the new electronic reporting system would not be ready in time for reporting the data that are collected in the first months of 2001, and/or that problems with the initial use of the system would delay reporting. To address the concerns raised by the commentors, EPA has put extra resources toward having the reporting system ready for late January 2001. EPA has also revised the rule to require initial reporting of UCMR data to be done between July 1 and September 30, 2000.

For small water systems, EPA will enter and report the results directly to its electronic reporting system through

its contract laboratories. Since the samples, once sent to EPA by the small system, are in EPA's charge, EPA potentially may be required to make the data available to the public if requested prior to the system's review. Again, however, EPA will consider the small system data preliminary and unreliable until the data have undergone quality control review by the system and EPA, and will so inform the public if the Agency is required to release the data before it is reviewed.

This final rule further clarifies that if a PWS chooses to report multiple results for a particular contaminant for the same sampling point and same monitoring event (*i.e.*, date) via the UCMR electronic reporting system, the highest reported value will be used as the official result.

While § 141.35 (b) specifies that the PWS "must report the results of unregulated contaminant monitoring to EPA and provide a copy to the State * * *", note that States will have electronic access to the monitoring results for State review concurrent with the PWS reporting those results to EPA. Therefore, States may decide to forego the requirement for an independent copy and are free to do so. PWSs should also be aware that some States may have additional requirements (*i.e.*, beyond those specified in this rule), such as immediate reporting of monitoring results which suggest an imminent threat to public health. States are asked to address any additional reporting requirements (or waiver of requirements) when they notify PWSs of their UCMR responsibilities. In the absence of any State direction on this matter, PWSs are expected to provide States with a copy of monitoring results concurrent with reporting those results to EPA via the electronic reporting system.

Additionally, for small systems in States requiring immediate reporting by PWSs of contaminants found in those systems, EPA will report these results to the system and the State promptly after EPA receives the results from its laboratory. In these States, systems still have the responsibility to report the results to the State, regardless of EPA's arrangements to make the data available to the State. Such a State requirement for systems to immediately report any contaminants found is not a requirement on EPA and EPA bears no liability if such reporting is beyond a State's reporting date or if there are errors in the reporting of the information. An example in which reporting results may present a concern to a small system is when EPA sends a paper report to the PWS and the PWS

does not report to the State, and the Agency's electronic process does not recognize the State as a State requiring immediate reporting which precludes the State from obtaining the PWS data from the EPA information system within the time specified by State law.

5. Clarification of Systems Purchasing Water From Other Systems

In § 141.40(a)(1)(ii), the UCMR indicates that large public water systems not purchasing their water from another wholesale or retail public water system must monitor under the requirements outlined in the rule. However, at § 141.40(a)(1)(iii) and (v), it specifies monitoring requirements for large and small public water systems purchasing their water supply from a wholesale public water system only, with no mention of retail systems. Sections 141.40(a)(1)(iii) and (v) have been modified to address both wholesale and retail systems. This technical correction clarifies and provides consistency in regards to wholesale and retail systems in the rule. The original intent was to address purchase of water from another system in these cases, whether or not it was a wholesale or retail system. Additionally, for small systems purchasing their entire water supply, today's rule changes the wording "wholesale" to "another" public water system to clarify that the selected small system may have to monitor, in particular in the distribution system, regardless of the type of system from which it purchases water. EPA had also proposed to require monitoring for *Aeromonas* in selected consecutive systems. However, stakeholder comments pointed out various problems with conducting such monitoring for Screening Surveys and EPA has modified the final rule to eliminate these systems from monitoring. Only the systems statistically selected and notified must conduct the Screening Survey monitoring for *Aeromonas*, as discussed elsewhere in this Rule.

6. Clarification of Source (Raw) Water Monitoring Alternative

In § 141.40(a)(5)(ii)(C), the UCMR allows systems in States requiring source (raw) water monitoring for compliance monitoring to conduct UCMR monitoring in the source water for List 1 contaminants. However, once one or more contaminants on the UCMR list are found, the monitoring must also be done at the entry points to the distribution system. This final rule establishes that should a system in a State requiring source (raw) water monitoring find a contaminant in the source water, the system must initiate

monitoring at the entry point to the distribution system only for the contaminant(s) found, unless it desires to sample and test for all contaminants analyzed by that same method, or for all the contaminants, at its option. EPA has also clarified the rule to specify that the monitoring, once initiated at the entry point to the distribution system, must be conducted for the next 12 month period (four times for surface water systems and two times five to seven months apart for ground water systems), even if the monitoring extends past the end of 2003. This requirement to move the monitoring activity was necessary to allow EPA to assemble a nationally consistent data set for UCMR contaminants.

While this was the original intent, the September 1999 final rule was not clear on this matter. In response to comments, the rule also clarifies (see § 141.40(a)(5)(ii)(C)), however, that EPA or the State may determine that sampling at the entry point to the distribution system is unnecessary because no treatment was instituted between the source water sampling point and the distribution system that would affect measurement of the contaminants involved. Further, if a system would like to guard against the possibility of extending the sampling period then it can take all UCMR samples at the EPTDS. These samples would be separate from compliance monitoring samples for regulated contaminants taken at the source water.

7. Clarification of Treatment Plant Latitude/Longitude Options

At § 141.40(b)(1)(ix), the existing rule states that, if a State enters into a Memorandum of Agreement with EPA to implement the UCMR, the State must report the latitude and longitude of its systems' treatment plants when the systems report the first Assessment Monitoring results for List 1 contaminants. The agency wants to clarify that this requirement under the UCMR is in addition to a preexisting requirement to report by January 1, 2000, either the latitude and longitude or the street address of each treatment plant location. The preexisting reporting requirement is based on 40 CFR 142.15(b)(1) (which requires States to submit inventory information concerning their public water systems, according to a format and schedule prescribed by EPA; the requirement for reporting latitude/longitude information for treatment plants was transmitted to States by memorandum of July 10, 1998, from Robert J. Blanco, Director, Implementation and Assistance Division, OGWDW, as "Revised

Inventory Reporting Requirements for the Safe Drinking Water Information System," June 1998, EPA 816-R-98-007, with a reporting date of January 1, 2000) and the EPA Locational Data Policy (published as Information Resources Management Policy Manual 2600, Chapter 13, April 8, 1991). The EPA Locational Data Policy specifies the content of latitude and longitude data that are to be reported by facilities and other entities. The final rule establishes that the State may use the latitude and longitude of closely adjacent facilities at or near the same site, when the facilities are associated with the treatment plant(s). Specifically, the State may use the latitude and longitude of the intake or wellhead/field if the treatment plant is on the same site, or the latitude and longitude of the entry point to the distribution system if it is on the same site as the treatment plant. Other facilities located closely adjacent to the treatment plant and part of the PWS for which it has a latitude and longitude may also be used. As a guide, "closely adjacent" should be taken to mean approximately ¼ mile or 400 meters away from the treatment plant or a reasonable location determined by the State. This approach provides the State with the flexibility to use closely associated measurements without having to return to take field measurements. It also provides EPA with the information to be used in health risk assessment relating to the location of contaminants to populations potentially affected. This report of latitude and longitude will be a one-time reporting, unless the information needs to be updated.

8. Addition of Consensus Method for Testing

The 1999 UCMR required systems to arrange for testing of the listed contaminants by a laboratory certified for compliance analysis using specified EPA analytical methods. Since the September 17, 1999, publication of the UCMR, EPA has approved a consensus organization method for compliance monitoring that is also approved for UCMR analysis. Therefore, EPA revised § 141.40(a)(5)(ii)(G), "Testing", to allow laboratories certified to perform compliance monitoring using any approved consensus methods that are also approved for UCMR monitoring to be automatically approved to perform UCMR monitoring using that method. The same holds true for any approved EPA method.

9. Approval of EPA Method 502.2 and Standard Methods 6200C for the Analysis of MTBE

With today's action, in response to comments from stakeholders, EPA is approving the use of EPA Method 502.2 and Standard Methods 6200C for analyses of MTBE, included on List 1 for Assessment Monitoring. Those methods are an addition to those previously identified in § 141.40(a)(3), Table 1, for analysis of MTBE. For systems that want to report MTBE data collected prior to 2001 to meet the UCMR regulatory requirements, they will need to use the UCMR (1999) data elements, as revised by this rule, to meet the reporting requirements of the UCMR. Otherwise, the data will not meet EPA's minimum reporting requirements for UCMR data and will limit the use of the data in subsequent regulatory analyses. This final rule also modifies § 141.40(a)(3), Table 1, List 1, footnote "n," that sample preservation techniques and holding times specified in EPA Method 524.2 must be used by laboratories using either EPA Method 502.2 or Standard Methods 6200C, as the sampling and holding time requirements of Standard Methods 6010B are not adequate for the purposes of the UCMR.

10. Approval of EPA Methods 515.3 and 515.4 for the Analysis of DCPA Mono-acid Degradate and DCPA Di-acid Degradate

In today's final rule, and in response to comments, EPA modified § 141.40(a)(3), Table 1, List 1, to add EPA Methods 515.3 and 515.4 for analysis of DCPA acid metabolites. Adding these methods will provide systems and their laboratories more flexibility in analyzing these UCMR contaminants and managing costs. These methods are an addition to those previously identified in § 141.40(a)(3), Table 1, for analysis of DCPA mono and di-acid degradates. In this rule, EPA also modified § 141.40(a)(3), Table 1, List 1, footnote "j," to permit the use of EPA Method 515.3 for the analysis of DCPA mono-acid and di-acid degradates in the UCMR with the following conditions:

1. When monitoring is conducted using EPA Method 515.3, only the results for DCPA mono-acid and di-acid degradates which are less than the UCMR MRL for these analytes may be reported.

2. If DCPA mono-acid or di-acid degradates are observed at greater than or equal to the UCMR MRL using EPA Method 515.3, then either a duplicate sample must be analyzed within the method specified sample holding time,

or a replacement sample, collected within the same month as the original sample, must be analyzed using one of the other methods approved for UCMR analysis of DCPA mono-acid and di-acid degradates. The PWS will then only report the result of subsequent analysis.

EPA also recently developed a revised version of EPA Method 515.3 titled EPA Method 515.4, which includes a wash step following hydrolysis that will remove the parent compound, DCPA. In this rule, EPA is approving the use of EPA Method 515.4 for UCMR monitoring of DCPA mono-acid and di-acid degradates. As this method includes a wash step to remove the parent compound, the use of EPA Method 515.4 is not subject to the conditions described above. EPA may also propose the approval of Method 515.4 for compliance monitoring in a future regulation. Until that time, EPA Method 515.4 is not approved for drinking water compliance monitoring. EPA Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatography with Electron Capture Detection," April 2000; EPA #815/B-00/001, is available by requesting a copy from the EPA Safe Drinking Water Hotline within the United States at 800-426-4791 (Hours are Monday through Friday, excluding federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Time). Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

11. Use of pH as a Water Quality Parameter

Today's final rule also clarifies that pH need not be reported as a water quality parameter for *chemical* contaminants. For the reasons explained in the proposal (65 FR 55362), EPA does not believe that analyzing the pH of finished drinking water will provide relevant data related to the occurrence of these particular UCMR chemical contaminants. Thus, EPA has eliminated pH as a water quality parameter for chemical contaminants. EPA still requires, however, that all the water quality parameters in § 141.40(a)(4)(i)(B), Table 2, Water Quality Parameters to be Monitored with UCMR Contaminants, be reported for microbiological contaminants. The only microbiological contaminant currently required to be monitored under the 1999 UCMR is *Aeromonas*, under Screening Survey Two, to be conducted in 2003, after promulgation of its method.

12. Detection Limit Reference

EPA had proposed to remove the reference to the 40 CFR part 136 appendix B definition of method detection limit (MDL) in the Appendix to § 141.40 and instead to reference the detection limit calculations listed in each method. EPA received three comments on this subject. These commentors support EPA's proposed approach for drinking water. These commentors stated that the requirement to fortify samples for detection limit determination at a level less than or equal to the minimum reporting level (MRL) is a logical simplification and results in significant savings for analytical laboratories on multi-element analyses. While all three of these commentors were strongly in support of the proposed change, two of them also stated that this proposed change should not apply to all programs. Specifically, these commentors stated that the 40 CFR part 136 appendix B concept should continue to be applied to wastewater. These two commentors further stated that the MRL concept used in the UCMR makes sense because there is no meaning attached to levels below the MRL and it is more appropriately based on data quality objectives (DQOs).

EPA agrees with the commentors that the use of the 40 CFR part 136 appendix B MDL concept is not required for purposes of this rule because EPA's goal is to collect analytical data at the MRL or above. The MRL represents a concentration that can be both quantitatively measured and may be of potential health concern. EPA also wishes to affirm the commentors' statements related to the continued application of the 40 CFR part 136 appendix B MDL concept to other programs.

With respect to today's action, EPA is implementing the proposed approach as described in appendix A to § 141.40, paragraph (2). In particular, the regulatory provision in today's final rule requires the calculation of a detection limit, consistent with the procedures described in each respective method for the analyte under consideration. However, the Agency wants to eliminate any potential confusion between this approach and the 40 CFR part 136 appendix B MDL methodology. The approach in today's rule includes other considerations not included in 40 CFR part 136 appendix B, such as requiring the detection limit to be determined over multiple days and not requiring the detection limit samples to be fortified near the calculated detection limit, that may result in a different calculated level

of detection for those analytes measured than would be obtained through use of the procedures described in 40 CFR part 136 appendix B. EPA has determined that the data gathering needs under the UCMR lend themselves to the use of quantitation based limits such as the MRL and less stringent requirements for determination of detection than the needs of other compliance monitoring programs with differing data quality objectives and programmatic requirements.

13. Detection Confirmation

With the addition of an HPLC method for the determination of linuron and diuron, and a proposed membrane filtration method for the analysis of *Aeromonas*, the previous UCMR requirement to confirm all detections by GC/MS can no longer apply to all analyses. Therefore, EPA has modified appendix to § 141.40 to clarify that all detections observed using a gas chromatographic analytical method are to be confirmed by GC/MS, however this confirmation requirement does not apply to analytes detected using a non-gas chromatographic method.

14. Method Defined Quality Control

EPA received questions from representatives of PWS and laboratories concerning the quality control requirements specified for UCMR analyses. EPA has clarified the quality control requirements contained in the appendix to § 141.40 to indicate that by specifying quality control elements specific to UCMR analyses, EPA did not intend to change the methods requirements concerning the analyses of Laboratory Fortified Blanks or Laboratory Performance checks.

15. Clarification of Resampling

EPA offers the following guidance on resampling in response to questions about the 1999 UCMR since its publication in September 1999. If laboratory or shipping problems cause the loss of a sample, then all efforts should be made to replace that sample at the earliest possible time (*i.e.*, resample). EPA's preference is that the sample be replaced within the same month it was originally sampled. If this is not possible, EPA's next preference is within the same quarter. In all but one case, the schedule for future samples should not change: for example, if a surface water PWS is on a sampling schedule of January, April, July, and October and an April sample is lost, it should be resampled as soon as possible (*i.e.*, in April or early May) and the next quarter's samples shall still be taken in July as previously scheduled. The only

time this guideline should not be followed is when all the samples from the first sampling period are lost. In this case, the sampling frequency will be determined by when the first set of samples is collected, analyzed and reported: for example, if the plan was to take samples in January, April, July and October, but all the January samples were lost. In such an event, the PWS may decide to resample in February, and its new sampling schedule would become February, May, August and November.

16. Identification of Laboratories Approved for UCMR Monitoring

EPA has received questions from State and PWS representatives regarding the availability of a comprehensive list of laboratories approved to conduct the analysis which support UCMR monitoring. Approval to conduct analysis for the other UCMR contaminants on List 1, Assessment Monitoring and List 2, Screening Survey (chemical monitoring only) relies on existing State or primacy agency laboratory certification for compliance monitoring. For the List 1, Assessment Monitoring contaminants, the existing certifications for methods used in compliance monitoring are directly applicable. For example, a laboratory that has State certification to conduct compliance monitoring in drinking water using EPA Method 525.2 is automatically approved to use that method for UCMR monitoring of any parameter which has EPA Method 525.2 as the UCMR approved method. For the List 2, Screening Survey One for chemical contaminants, the compliance methods and certifications are not directly applicable because none of the approved UCMR List 2 methods are currently used for compliance monitoring. However, the List 2 methods for chemicals are similar (both mechanistically and in terms of the determinative step) to other compliance monitoring methods and consequently, State or primacy agency certification in a specified similar analytical procedure will serve as an approval to conduct these List 2 chemical analyses, as specified in today's rule at § 141.40(a)(5)(ii)(G), "Testing." Following the example cited above, and applying it to the List 2 chemical monitoring, a laboratory with certification to conduct compliance monitoring using EPA Method 525.2 is automatically approved to use EPA Method 526 and 528 to support monitoring for those respective List 2, Screening Survey chemical contaminants. EPA Method 532 is the third approved method for the List 2

chemical contaminants and for this method approval is contingent upon State or primacy agency certification in EPA Method 549.1 or EPA Method 549.2.

For both perchlorate and *Aeromonas* (once EPA promulgates a final analytical method), a laboratory must pass a performance test in addition to using its certification for related methods for approval to analyze and report results for public water systems under the revised UCMR. This is addressed in the rule in § 141.40(a)(5)(G).

EPA does not have a comprehensive or accurate list of laboratories which are currently certified at the State level for drinking water compliance monitoring. Most States have primacy over drinking water compliance issues in their respective State, and laboratory certification is a key component of their State program. If a PWS is attempting to locate a certified laboratory for any of these UCMR analysis, they should first check with the certified laboratory which normally conducts their compliance monitoring. If their regular compliance laboratory does not have the capability or the proper certifications, they should contact their State drinking water administrator to assist in locating an alternate State certified laboratory. Since UCMR monitoring is a direct implementation rule, the PWS could choose a laboratory which has the proper certification for the UCMR approved methods in any other State (several, but not all, of the UCMR perchlorate approved laboratories would qualify). However, if the PWS wishes their UCMR laboratory to provide concurrent compliance monitoring data (*i.e.* Phase II/V) with these UCMR analysis, that alternate laboratory will need to have certification in their respective State.

Currently, the only list of approved laboratories, which has been published by EPA, is specific to the List 1, Assessment Monitoring of perchlorate using EPA Method 314.0 (available at: www.epa.gov/safewater/standard/ucmr/aprvlabs.html). This perchlorate approval is contingent on these labs maintaining their State or primacy agency certification for an inorganic parameter using an approved ion chromatographic compliance monitoring method, and is only granted after these labs have passed the EPA perchlorate PT program.

VI. Additional Issues From Public Comment and EPA Response

Several issues were raised during the public comment processes. EPA received a total of 15 public comments within the specified public comment

period. Other major issues that were addressed that have not been discussed are summarized below.

A. Reporting Data on Other Contaminants

EPA will be paying for the analysis of samples for small systems. The analytical methods used for the List 1 and 2 contaminants will routinely determine the presence of other contaminants for which testing is not required to be done and reported. The contaminants that are not required to be reported but are identified in the analysis of samples from small systems will become research data for EPA and may provide the basis of future Contaminant Candidate Lists. Commentors generally supported collecting such data from small systems (where EPA is conducting the analytical work) but differed on how best to store data in the EPA database. EPA will place these data in the NCOD since they would be considered reliable results for unregulated contaminants under the SDWA and, therefore, must be placed in the NCOD under SDWA Section 1445(g). EPA plans to clearly label these data to indicate that monitoring for these contaminants is not required under this regulation and that reporting under the CCR is not required. Also, because large systems are not included, these data are not completely representative and EPA will not use the data to make a determination to regulate, without supplemental information.

B. More Complete Specification of Contaminants for Unregulated Contaminant Monitoring in the Future

The current approach of listing specific contaminants for monitoring under the UCMR program does not address the complete effect of the individual contaminant on the environment and in drinking water. For example, a pesticide may have several degradates. Unregulated contaminant monitoring only for the parent pesticide may entirely miss potentially harmful degradates and by products. For example, the European Union treats several categories of contaminants as groups for the specification of monitoring requirements, such as "pesticides and degradates." (European Union, 1997). Public comments were mixed on the issue of how to group unregulated contaminants to more completely assess the occurrence of such contaminants in source water and drinking water. The current CCL includes contaminants that are parent compounds, degradates and groups of degradates. EPA will consider the

comments received in developing any future proposals for the UCMR. This is a complex topic and further expert and stakeholder discussions may be warranted.

C. Synchronization of UCMR and CCL in the Future

The current schedules for the development of the CCL and UCMR are February 1998 and August 1999, respectively, and then every five years after each of those dates. This scheduling means that the UCMR responds to the contaminant list of the CCL, rather than allowing the UCMR to anticipate contaminants for which the CCL deliberations could evaluate and decide whether or not to regulate. Given the current characteristics of the UCMR program and CCL process, EPA requested public comment on whether the UCMR monitoring list revisions could be promulgated at the same time as the publication of the revised CCL, indicating which contaminants would be on the Lists 1, 2 or 3 about 1½ years earlier than under the current process.

The comments provided a wide range of opinions reflecting the complexity of the issue. While commentors supported some synchronization, they also expressed reservations, noting that the CCL needed to come first to establish the candidate list and priorities. There is no decision on this process and EPA will continue to consider the comments.

VII. Guidance Manuals

EPA will provide guidance manuals to further explain the quality control measures that laboratories are required to perform for List 2 (appendix A to 40 CFR 141.40), as well as all unregulated contaminant monitoring. For small systems that are part of the national representative sample, the sampling guidance, "Unregulated Contaminant Monitoring Regulation Guidance for Operators of Public Water Systems Serving 10,000 or Fewer Persons" (EPA 815-R-00-018, December 2000), is available. The "Unregulated Contaminant Monitoring Regulation Analytical Methods and Quality Control Manual" (EPA 815-R-99-003, March 2000) and its "Supplement A to the Unregulated Contaminant Monitoring Regulation Analytical Methods and Quality Control Manual" (EPA 815-R-00-002, March 2000) are available. These documents are available through the EPA Safe Drinking Water Hotline at 800-426-4791, or through EPA's Office of Ground Water and Drinking Water Homepage at <http://www.epa.gov/safewater>.

VIII. Costs and Benefits of the Rule

A. Program Cost Estimates

Today's amendment to the UCMR (64 FR 50556) adds methods for monitoring the UCMR (1999) List 2 contaminants. The average annual cost for Screening Survey One over the period 2001–2005 is \$428,720: EPA, \$127,650; States, \$0; small systems \$120; and large systems, \$300,950. The first set of List 2 contaminants may be collected at the same time as the Assessment Monitoring component of the UCMR program. As described elsewhere in this Preamble, the first Screening Survey will be conducted over a 2-year period from 2001 to 2002. One hundred eighty small systems randomly selected from the first 267 small systems monitoring in 2001, and 120 large systems randomly selected from the 2,774 large PWSs will monitor in 2002.

Of the 16 List 2 contaminants, today's rule establishes the analytical methods for 13 chemical contaminants, which will be monitored under Screening Survey One. Today's rule also sets the schedule for the monitoring of *Aeromonas*, which will be monitored under Screening Survey Two once its analytical method is promulgated. Since the method for *Aeromonas* is not being established under today's rule, the estimated costs associated with *Aeromonas* monitoring are not included here, but will be addressed with the promulgation of the final method for *Aeromonas*. Estimated system and EPA costs are based on the analytical costs for these methods. EPA recognizes that these Screening Survey methods are new and will not coincide with other compliance monitoring. However, since the 13 List 2 chemical contaminants for the first Screening Survey may be analyzed by laboratories using water samples that are collected at the same time as the Assessment Monitoring contaminants, there are only minimal incremental labor costs anticipated for systems, in the form of taking an additional sample for List 2 contaminants at the same time of List 1 sampling. The Agency assumes there is minimal added labor burden associated with filling one more sample bottle.

In addition, today's Rule makes several clarifications and technical corrections to the UCMR (1999). EPA believes that none of these clarifications and corrections will increase the costs or labor burden to public water systems or States. Most of these items were already included in the cost and burden analyses for the UCMR (1999); their explanation is simply being clarified. These assumptions are discussed below.

Updating the NCOD on a quarterly basis rather than six times per year will not be an additional expense to systems or States, and will reduce EPA costs marginally. Requiring one-time reporting of system and laboratory points-of-contact will improve the implementation of the program by allowing EPA to convey important testing and reporting information to systems and laboratories, thereby enhancing the long-term data quality. Clarifying the data element definitions will provide more usable information by more clearly conveying the data that should be reported and should not be an additional cost to any entity. Clarifying the data reporting procedures through a "single-entry" electronic data reporting process, will reduce costs to systems marginally. Clarification of the source (raw) water monitoring alternative option does not increase the costs to systems beyond those that EPA had anticipated originally in adopting the alternative so that systems in States requiring source water compliance monitoring could coordinate unregulated contaminant monitoring with other monitoring. Providing options for reporting treatment plant latitude and longitude should marginally reduce costs to States which had not previously reported these locational data. Approval of EPA Method 502.2 and Standard Methods 6200C for the analysis of MTBE provides systems more flexibility to use methods that they may already be using to monitor for this unregulated contaminant, possibly providing cost savings to them. Approval of EPA Methods 515.3 and 515.4 for the analysis of DCPA mono-acid degradate and DCPA di-acid degradate provides flexibility to systems to use methods similar to those used in compliance monitoring and may reduce costs for testing and analysis of those unregulated contaminants. Eliminating the use of pH as a water quality parameter required for reporting chemical contaminant results will marginally reduce costs to systems for testing and analysis. Removing the reference to 40 CFR Part 136, Appendix B definition of Minimum Detection Limit is a technical change with no cost. Providing contaminant detection confirmation clarification for linuron and diuron as applying only to non-gas chromatographic methods does not change the costs of the rule for the other unregulated contaminants. This change only applies to these two List 2 contaminants and is included in the cost analysis for the List 2 contaminant methods. Clarifying that the method

quality controls for UCMR contaminants are to be used along with the UCMR-specific quality controls for testing and analysis does not increase the cost of the regulation. Finally, clarifying the resampling process when samples must be resubmitted does not increase the cost of the regulation. These costs were included in the original analysis.

As noted, additional non-labor costs from this rule are solely attributed to the laboratory fees that will be charged for analysis of these contaminants. These costs will only be incurred by EPA and by large PWSs. EPA assumes that there will be additional charges imposed for analysis of the List 2 contaminants, since these contaminants will be analyzed under new methods or modifications of existing methods. EPA estimates that the average laboratory fee for the analyses for the 13 Screening Survey One chemical contaminants, using EPA Methods 526, 528, and 532 will be \$560. The costs for Screening Survey One for laboratory analyses are calculated as follows: the number of systems multiplied by the number of entry or sampling points, multiplied by the sampling frequency, and then multiplied by the cost of analysis.

IX. Administrative Requirements

A. Executive Order 12866—Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

B. Executive Order 13045—Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it is not "economically significant" as defined under Executive Order 12866. Further, this rule does not concern an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. This rule makes only clarifying changes to the September 1999 UCMR and establishes analytical methods and procedures for monitoring of the List 2 unregulated contaminants.

However, this rule is part of the Agency's overall strategy for deciding which contaminants to set drinking water standards for under the Safe Drinking Water Act (see discussion of the Contaminant Candidate List (CCL) at 63 FR 10273). Its purpose is to ensure that EPA obtains data on the occurrence of contaminants on the CCL—specifically, 13 of the List 2 chemical contaminants—where those data are currently lacking. In addition, today's rule sets the schedule for monitoring one microbiological contaminant. The method for this contaminant, *Aeromonas*, is reserved, and will be published in a subsequent notice. EPA is also taking steps to ensure that the Agency will have data on the health effects of these contaminants on children through its research program. The Agency will use these occurrence and health effects data to decide whether to regulate these contaminants.

C. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under UMRA section 202, EPA generally must prepare a written

statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, UMRA section 205 generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative, if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under UMRA section 203 a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that today's rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or for the private sector in any one year. Total annual costs of today's rule (across the implementation period of 2001–2005), for State, local, and Tribal governments and the private sector, are estimated to be \$428,720, of which EPA will pay \$127,650, or approximately 30 percent. Again, States are assumed to incur no additional costs associated with the Screening Survey component of the UCMR. Thus, today's rule is not subject to the requirements of UMRA sections 202 and 205.

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments because EPA will pay for the costs of shipping and sample testing for the small PWSs required to sample and test for unregulated contaminants under this rule, including those owned and operated by small governments. The only thing small

governments will have to pay for is the cost of collecting the sample and reviewing the sample result. Screening Survey One samples will generally be collected coincident with Assessment Monitoring and therefore have minimal associated additional burden. These labor costs are minimal. This rule will, therefore, not significantly or uniquely affect small governments. Thus, today's rule is not subject to the requirements of UMRA section 203.

D. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2040–0208.

The information to be collected under today's rule fulfills the statutory requirements of section 1445(a)(2) of the Safe Drinking Water Act, as amended in 1996. The data to be collected will describe the source of the water, location of the water source and treatment plant, and test results for samples taken from PWSs. The concentrations of any of the 13 UCMR List 2 contaminants will be evaluated regarding health effects and will be considered for future regulation accordingly. Reporting is mandatory. The data are not subject to confidentiality protection.

The cost estimates described below for the List 2 contaminants are attributed to sampling and additional contract laboratory fees. The additional labor burden that will be incurred by PWSs during the ICR period (2001–2003) for sampling is 100 hours. Screening Survey One sampling will generally be coincident with Assessment Monitoring and the burden and costs for sample collection, packing, and shipping, and reporting were included in the original ICR for the UCMR (1999), except for the small incremental sampling burden of 100 hours. For the first Screening Survey, 180 small water systems (from the national representative sample of systems serving 10,000 or fewer people) will collect and test samples during 2001, and 120 large public water systems will collect and test samples during 2002. It is estimated that each small system will incur an average of 0.06 hours of labor per system per year, with an average labor cost of \$1 per system per year. During the ICR period, large systems and EPA will incur costs for the analysis of the 13 List 2 chemical contaminants (e.g., Screening Survey One). Each large system respondent will incur an annual average cost of \$4,200.

Program implementation costs and burdens for the States, Territories and EPA were already included in the original ICR for UCMR (1999).

EPA will incur no additional labor costs for implementation of today's rule. EPA's annual non-labor costs for the ICR period 2001–2003 are estimated to be \$212,700 for Screening Survey One, which consists of 13 chemical contaminants. The non-labor costs are solely attributed to the cost of sample testing by contract laboratories and the shipping of the sample kits to the 180 small systems.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and use technology and systems for the purposes of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. EPA is not amending the table in 40 CFR part 9 of currently approved ICR control numbers. The control number previously approved for UCMR and the approved sections of 40 CFR Part 141 have not been changed.

E. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

The RFA provides default definitions for each type of small entity. It also authorizes an agency to use alternative definitions for each category of small entity, "which are appropriate to the

activities of the agency” after proposing the alternative definition(s) in the **Federal Register** and taking comment. 5 U.S.C. 601(3)–(5). In addition to the above, to establish an alternative small business definition, agencies must consult with the Small Business Administration’s (SBA) Chief Counsel for Advocacy.

For purposes of assessing the impacts of today’s rule on small entities, EPA considered small entities to be systems serving 10,000 or fewer persons. This is the size of system specified in SDWA as

requiring special consideration with respect to small system flexibility. In accordance with the RFA requirements, EPA proposed using this alternative definition in the **Federal Register**, (63 FR 7605, February 13, 1998), requested public comment, consulted with SBA on the definition as it relates to small businesses, and expressed its intention to use the alternative definition for all future drinking water regulations in the final Consumer Confidence Reports regulation (63 FR 44511, August 19, 1998). As stated in that final rule, the

alternative definition would be applied to regulation, as well.

After considering the economic impacts of today’s final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The estimated distribution of the representative sample of small entities required to monitor under today’s rule, categorized by ownership type, source water and system size, is presented in Table 1.

TABLE 1.—NUMBER OF PUBLICLY AND PRIVATELY OWNED SYSTEMS TO PARTICIPATE IN SCREENING SURVEY ONE

| Size category | Publicly owned systems | Privately owned systems | Total—all systems |
|--------------------------------------|------------------------|-------------------------|-------------------|
| Ground Water Systems | | | |
| 500 and under | 8 | 31 | 39 |
| 501 to 3,300 | 31 | 14 | 45 |
| 3,301 to 10,000 | 24 | 7 | 31 |
| Subtotal Ground Water Systems | 63 | 52 | 115 |
| Surface Water Systems | | | |
| 500 and under | 6 | 14 | 20 |
| 501 to 3,300 | 10 | 5 | 15 |
| 3,301 to 10,000 | 24 | 7 | 30 |
| Subtotal Surface Water Systems | 40 | 26 | 65 |
| Total | 102 | 78 | 180 |

The basis for the UCMR RFA certification for today’s rule, which adds the Screening Survey contaminants and methods to the UCMR program, is as follows: The average annual compliance cost of the rule for a small system is \$1 which represents 0.0004 percent of revenue/sales for the 180 small systems required to monitor in Screening Survey One as a result of today’s rule. In order to reduce burden on small systems, EPA is paying for the costs of analyses, shipping and quality control for all small systems (97% of the entire cost of monitoring and testing by small systems).

F. National Technology Transfer and Advancement Act

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so will be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and

business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking involves technical standards. Therefore, the Agency conducted a search to identify potentially applicable voluntary consensus standards. However, we identified no such standards. Therefore, EPA has decided to use EPA Methods 526, 528, and 532.

G. Executive Order 12898—Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898, “Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations” (February 11, 1994), focuses Federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. By seeking to identify unregulated contaminants that may pose

health risks via drinking water from all PWSs, today’s regulation furthers the protection of public health for all citizens, including minority and low-income populations using public water supplies.

H. Executive Order 13132 (Federalism)

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various

levels of government, as specified in Executive Order 13132. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This Rule specifies the approved analytical methods for 13 List 2 chemical contaminants, thereby allowing these contaminants to be included in the UCMR Screening Survey program, and makes other minor corrections to the September rule (64 FR 50556). The cost to State and local governments is minimal, and the rule does not preempt State law. Thus, Executive Order 13132 does not apply to this rule.

I. Executive Order 13084—Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian Tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the Tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to OMB, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected Tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian Tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

Today's rule does not significantly or uniquely affect the communities of Indian Tribal governments. Only one Tribal water system serves more than 10,000 persons and will be required to monitor and test under this rule. The costs for monitoring and testing for the large system are not significant. All the other Tribal water systems serve 10,000 or fewer persons, and in today's rule had an equal probability of being selected in the national representative sample of small systems. EPA will pay the costs of unregulated contaminant testing for small Tribal water systems

just as they will for other small water systems. The actual cost of taking the sample is considered minimal. Tribal water systems will be treated the same as other water systems and the impact of this rule on them will not be significant or unique. There are no costs associated with the minor amendments that clarify the September 1999 UCMR.

This rule will not impose substantial direct compliance costs on Tribal communities either because, with the exception of the one large Tribal water system, the Federal government will provide the funds necessary to pay the potential direct costs incurred by Tribal governments in complying with the rule for the testing and reporting of contaminant occurrence of small systems. By statute, EPA must pay the reasonable testing and laboratory analysis costs for small systems selected to participate in this monitoring program. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this Rule.

J. Plain Language

Executive Order 12866 and the President's memorandum of June 1, 1998, require each agency to write all rules in plain language. EPA requested comment in the proposed rule on ways to make this rule easier to understand. The Agency did not receive any comments on this matter.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by U.S.C. 804(2). This rule will be effective January 11, 2001.

L. Administrative Procedure Act

Under the Administrative Procedure Act (APA), 5 U.S.C. 553(d), an agency must normally provide a minimum of 30 days between publication of a final rule and its effective date. The effective date for today's rule will be January 11, 2001. Hence, there will be less than 30 days between publication and the

effective date. The APA provides that an agency can make a rule effective in less than 30 days, however, where the agency finds "good cause" for doing so and publishes the reasons with the rule.

EPA believes that such "good cause" exists for making this rule effective in less than 30 days. These reasons are as follows. With respect to List 1 Assessment Monitoring, this is primarily a supplemental rulemaking related to the Unregulated Contaminant Monitoring Regulation (UCMR), that was published on September 17, 1999, and which specified that List 1 monitoring would begin on January 1, 2001. Today's rule does not alter the original effective date for List 1 monitoring but it does make minor revisions to requirements to conducting the monitoring and reporting monitoring results for List 1 contaminants. Because List 1 monitoring has long been scheduled to begin on January 1, 2001, and affected systems have been gearing up to do so, it is critical that all the minor amendments to the original UCMR be effective as soon as possible, so that systems that are scheduled to begin monitoring can do so in compliance with the new requirements.

With respect to List 2 Screening Survey monitoring for 13 contaminants, EPA wants to make this rule effective January 11, 2001, in order to reduce the burden on small systems and allow them to complete their List 2 monitoring coincident with their List 1 Assessment Monitoring.

X. Public Involvement in Regulation Development

EPA's Office of Ground Water and Drinking Water has developed a process for stakeholder involvement in its regulatory activities to provide early input to regulation development. Today's rule amended the September 1999 UCMR, by establishing the method requirements for 13 List 2 chemical contaminants and making other minor changes in the UCMR. At the time of UCMR publication—September 1999—the methods for these contaminants were still being refined by EPA. For a description of public involvement activities related to the UCMR, please see the discussion at 64 FR 50556. EPA conducted a series of five national implementation workshops for States and EPA Regions, regarding the September 1999 UCMR, from March 26 through April 27, 2000, in Philadelphia, Atlanta, Kansas City, Denver, and San Francisco. Participants, other than EPA personnel, represented 35 States, two territories, and one Tribe. Questions about implementation of the UCMR

prompted many of today's technical changes and clarifications.

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- a. Revising paragraph (c);
 - b. Revising paragraph (d) (including Table 1);
 - c. Revising paragraph (e); and
 - d. Revising paragraph (f).
- The Revisions read as follows:

§ 141.35 Reporting of unregulated contaminant monitoring results.

* * * * *

(c) *When must I report monitoring results?* You must report the results of unregulated contaminant monitoring within thirty (30) days following the month in which you received the results from the laboratory. EPA will conduct its quality control review of the data for sixty (60) days after you report the data, which will also allow for quality control review by systems and States. After the quality control review, EPA will place the data in the national drinking water contaminant occurrence database at the time of the next database update. Exception: Reporting of monitoring results to EPA received by public water systems prior to June 30, 2001, must occur between July 1 and September 30, 2001.

(d) *What information must I report?*

(1) You must provide the following “point of contact” information: name, mailing address, phone number, and e-mail address for:

(i) PWS Technical Contact, the person at your PWS that is responsible for the technical aspects of your unregulated contaminant monitoring regulation (UCMR) activities, such as details concerning sampling and reporting;

(ii) PWS Official, the person at your PWS that is able to function as the official spokesperson for your UCMR activities; and

(iii) Laboratory Contact Person, the person at your laboratory that is able to address questions concerning the analysis that they provided for you.

(2) You must update this information if it changes during the course of UCMR implementation.

(3) You must report the information specified for data elements 1 through 16 in the following table for each sample.

List of Subjects in 40 CFR Part 141

Environmental protection, Analytical methods, Chemicals, Incorporation by reference, Intergovernmental relations, Microorganisms, Monitoring, Water supply.

Dated: December 15, 2000.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

1. The authority citation for part 141 continues to read as follows:

Authority: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

2. Section 141.35 is amended by:

TABLE 1.—UNREGULATED CONTAMINANT MONITORING REPORTING REQUIREMENTS

| Data Element | Definition |
|--|---|
| 1. Public Water System (PWS) Identification Number. | The code used to identify each PWS. The code begins with the standard two-character postal State abbreviation; the remaining seven characters are unique to each PWS. |
| 2. Public Water System Facility Identification Number—Sampling Point Identification Number and Sampling Point Type Identification. | The Sampling point identification number and sampling point type identification must either be static or traceable to previous numbers and type identifications throughout the period of unregulated contaminant monitoring. The Sampling point identification number is a three-part alphanumeric designation, made up of: |

TABLE 1.—UNREGULATED CONTAMINANT MONITORING REPORTING REQUIREMENTS—Continued

| Data Element | Definition |
|--|---|
| | <p>a. The Public Water System Facility Identification Number is an identification number established by the State, or at the State's discretion the PWS, that is unique to the PWS for an intake for each source of water, a treatment plant, a distribution system, or any other facility associated with water treatment or delivery and provides for the relationship of facilities to each other to be maintained;</p> <p>b. The Sampling Point Identification Number is an identification number established by the State, or at the State's discretion the PWS, that is unique to each PWS facility that identifies the specific sampling point and allows the relationship of the sampling point to other facilities to be maintained; and</p> <p>c. Sampling Point Type Identification is one of following: SR—Untreated water collected at the source of the water system facility. EP—Entry point to the distribution system. MD—midpoint in the distribution system where the disinfectant residual would be expected to be typical for the system such as the location for sampling coliform indicator bacteria as described in 40 CFR 141.21. MR—point of maximum retention is the point located the furthest from the entry point to the distribution system which is approved by the State for trihalomethane (THM) (disinfectant byproducts (DBP)) and/or total coliform sampling. LD—location in the distribution system where the disinfectant residual is the lowest which is approved by the State for THM (DBP) and/or total coliform sampling.</p> |
| 3. Sample Collection Date | The date the sample is collected reported as 4-digit year, 2-digit month, and 2-digit day. |
| 4. Sample Identification Number | An alphanumeric value of up to 15 characters assigned by the laboratory to uniquely identify containers or groups of containers containing water samples collected at the same time and sampling point. |
| 5. Contaminant/Parameter | The unregulated contaminant or water quality parameter for which the sample is being analyzed. |
| 6. Analytical Results—Sign | <p>An alphanumeric value indicating whether the sample analysis result was:</p> <p>a. (<) “less than” means the contaminant was not detected or was detected at a level “less than” the MRL.</p> <p>b. (=) “equal to” means the contaminant was detected at a level “equal to” the value reported in “Analytical Result—Value.”</p> |
| 7. Analytical Result—Value | The actual numeric value of the analysis for chemical and microbiological results, or the minimum reporting level (MRL) if the analytical result is less than the contaminant's MRL. |
| 8. Analytical Result—Unit of Measure | The unit of measurement for the analytical results reported. [e.g., micrograms per liter, (µg/L); colony-forming units per 100 milliliters, (CFU/100 mL), etc.] |
| 9. Analytical Method Number | The identification number of the analytical method used. |
| 10. Sample Analysis Type | <p>The type of sample collected. Permitted values include:</p> <p>a. RFS—Raw field sample—untreated sample collected and submitted for analysis under this rule.</p> <p>b. RDS—Raw duplicate field sample—untreated field sample duplicate collected at the same time and place as the raw field sample and submitted for analysis under this rule.</p> <p>c. TFS—Treated field sample—treated sample collected and submitted for analysis under this rule.</p> <p>d. TDS—Treated duplicate field sample—treated field sample duplicate collected at the same time and place as the treated field sample and submitted for analysis under this rule.</p> |
| 11. Sample Batch Identification Number | <p>The sample batch identification number consists of three parts:</p> <p>a. Up to a 10-character laboratory identification code assigned by EPA.</p> <p>b. Up to a 15-character code assigned by the laboratory to uniquely identify each extraction or analysis batch.</p> <p>c. The date that the samples contained in each extraction batch extracted or in an analysis batch were analyzed, reported as an 8-digit number in the form 4-digit year, 2-digit month, and 2-digit day.</p> |
| 12. Minimum Reporting Level | Minimum Reporting Level (MRL) refers to the lowest concentration of an analyte that may be reported. Unregulated contaminant monitoring (UCM) MRLs are established in § 141.40 monitoring requirements for unregulated contaminants. |
| 13. Minimum Reporting Level Unit of Measure .. | The unit of measure to express the concentration, count, or other value of a contaminant level for the Minimum Reporting Level reported. (e.g., µg/L, colony forming units/100 mL (CFU/100 mL), etc.). |
| 14. Analytical Precision | <p>Precision is the degree of agreement between two repeated measurements and is monitored through the use of duplicate spiked samples. For purposes of the Unregulated Contaminant Monitoring Regulation (UCMR), Analytical Precision is defined as the relative percent difference (RPD) between spiked matrix duplicates. The RPD for the spiked matrix duplicates analyzed in the same batch of samples as the analytical result being reported is to be entered in this field. Precision is calculated as Relative Percent Difference (RPD) of spiked matrix duplicates from the mean using:</p> $RPD = \text{absolute value of } [(X_1 - X_2) / (X_1 + X_2) / 2] \times 100\%.$ <p>where: X₁ is the concentration observed in spiked field sample minus the concentration observed in unspiked field sample. X₂ is the concentration observed in duplicate spiked field sample minus the concentration observed in unspiked field sample.</p> |

TABLE 1.—UNREGULATED CONTAMINANT MONITORING REPORTING REQUIREMENTS—Continued

| Data Element | Definition |
|---------------------------------|--|
| 15. Analytical Accuracy | Accuracy describes how close a result is to the true value measured through the use of spiked field samples. For purposes of unregulated contaminant monitoring, accuracy is defined as the percent recovery of the contaminant in the spiked matrix sample analyzed in the same analytical batch as the sample result being reported and calculated using: % recovery = [(amt. found in spiked sample—amt. found in sample) – amt. spiked] × 100%. |
| 16. Spiking Concentration | The concentration of method analyte(s) added to a sample to be analyzed for calculating analytical precision and accuracy where the value reported use the same unit of measure reported for Analytical Results. |
| 17. Presence/Absence | Reserved. |

(e) *How must I report this information?* (1) You must report results from monitoring under this rule using EPA's electronic reporting system. For quality control purposes, you must instruct the organization(s) responsible for the analysis of unregulated contaminant samples taken under § 141.40 to enter the results into the reporting system, in the format specified by EPA. You are responsible for reviewing those results and approving the reporting (via the electronic system) of the results to EPA. You must also provide a copy of the results to the State, as directed by the State.

(2) If you report more than one set of valid results for the same sampling point and the same sampling event (for example, because you have had more than one organization (e.g., a laboratory) analyze replicate samples collected under § 141.40, or because you have collected multiple samples during a single monitoring event at the same sampling point), EPA will use the highest of the reported values as the official result.

(f) *Does the laboratory to which I send samples report the results for me?* While you must instruct the organization

conducting unregulated contaminant analysis (e.g., a laboratory) to enter the results into EPA's electronic reporting system, you are responsible for reviewing and approving the submission of the results to EPA. If the analytical organization or laboratory cannot enter these data for you using EPA's electronic reporting system, then you may explain to EPA in writing the reasons why alternate reporting is necessary and must receive EPA's approval to use an alternate reporting procedure.

- * * * * *
3. Section 141.40 is amended by:
- a. Revising paragraph (a)(1)(iii) introductory text;
 - b. Revising paragraph (a)(1)(v) introductory text;
 - c. Revising Table 1, List 1, List 2 and List 3, in paragraph (a)(3);
 - d. Revising Table 2, in paragraph (a)(4)(i);
 - e. Revising paragraph (a)(5)(ii)(B) (including table 3);
 - f. Revising paragraph (a)(5)(ii)(C);
 - g. Revising paragraph (a)(5)(ii)(G);
 - h. Revising paragraphs (a)(7)(i), (ii), and (iii);
 - i. Revising paragraph (b)(1)(ix);

j. In the Appendix A to § 141.40 by revising paragraphs (2) and (9); and
k. Adding paragraph (11) to the Appendix A to § 141.40.

The revisions and additions read as follows:

§ 141.40 Monitoring requirements for unregulated contaminants.

- (a) * * *
- (1) * * *
- (iii) *Large systems purchasing their entire water supply from another system.* If you own or operate a public water system (other than a transient system) that serves more than 10,000 persons and purchase your entire water supply from a wholesale or retail public water system, you must monitor as follows:
* * * * *
- (v) *Small systems purchasing their entire water supply from another system.* If you own or operate a public water system (other than a transient system) that serves 10,000 or fewer persons and purchase your entire water supply from another public water system, you must monitor as follows:
* * * * *
- (3) * * *

TABLE 1.—UNREGULATED CONTAMINANT MONITORING REGULATION (1999) LIST

| List 1—assessment monitoring chemical contaminants | | | | | |
|--|-----------------------|--|---------------------------|--------------------------|--|
| 1-contaminant | 2-CAS registry number | 3-analytical methods | 4-minimum reporting level | 5-sampling location | 6-period during which monitoring to be completed |
| 2, 4-dinitrotoluene | 121-14-2 | EPA Method 525.2 ^a | 2 µg/L ^e | EPTDS ^f | 2001-2003 |
| 2, 6 dinitrotoluene | 606-20-2 | EPA Method 525.2 ^a | 2 µg/L ^e | EPTDS ^f | 2001-2003 |
| Acetochlor | 34256-82-1 | EPA Method 525.2 ^a | 2 µg/L ^o | EPTDS ^f | 2001-2003 |
| DCPA mono-acid degradate ^h . | 887-54-7 | EPA Method 515.1 ^a , EPA Method 515.2 ^a , EPA Method 515.3 ^{i,j} , EPA Method 515.4 ^k , D5317-93 ^b , AOAC 992.32 ^c . | 1 µg/L ^e | EPTDS ^f | 2001-2003 |
| DCPA di-acid degradate ^h .. | 2136-79-0 | EPA Method 515.1 ^a , EPA Method 515.2 ^a , EPA Method 515.3 ^{i,j} , EPA Method 515.4 ^k , D5317-93 ^b , AOAC 992.32 ^c . | 1 µg/L ^e | EPTDS ^f | 2001-2003 |

TABLE 1.—UNREGULATED CONTAMINANT MONITORING REGULATION (1999) LIST—Continued

| List 1—assessment monitoring chemical contaminants | | | | | |
|--|-----------------------|---|-----------------------------|--------------------------|--|
| 1-contaminant | 2-CAS registry number | 3-analytical methods | 4-minimum reporting level | 5-sampling location | 6-period during which monitoring to be completed |
| 4,4'-DDE | 72-55-9 | EPA Method 508 ^a , EPA Method 508.1 ^a , EPA Method 525.2 ^a , D5812-96 ^b , AOAC 990.06 ^c . | 0.8 µg/L ^e | EPTDS ^f | 2001-2003 |
| EPTC | 759-94-4 | EPA Method 507 ^a , EPA Method 525.2 ^a , D5475-93 ^b , AOAC 991.07 ^c . | 1 µg/L ^e | EPTDS ^f | 2001-2003 |
| Molinate | 2212-67-1 | EPA Method 507 ^a , EPA Method 525.2 ^a , D5475-93 ^b , AOAC 991.07 ^c . | 0.9 µg/L ^e | EPTDS ^f | 2001-2003 |
| MTBE | 1634-04-4 | EPA Method 502.2 ^{a,n} , SM 6200C ^{d,n} , EPA Method 524.2 ^a , D5790-95 ^b , SM 6210D ^d , SM 6200B ^d . | 5 µg/L ^g | EPTDS ^f | 2001-2003 |
| Nitrobenzene | 98-95-3 | EPA Method 524.2 ^a , D5790-95 ^b , SM6210D ^d , SM6200B ^d . | 10 µg/L ^g | EPTDS ^f | 2001-2003 |
| Perchlorate | 14797-73-0 | EPA Method 314.0 ¹ | 4 µg/L ^m | EPTDS ^f | 2001-2003 |
| Terbacil | 5902-51-2 | EPA Method 507 ^a , EPA Method 525.2 ^a , D5475-93 ^b , AOAC 991.07 ^c . | 2 µg/L ^e | EPTDS ^f | 2001-2003 |

Column headings are:

¹—Chemical or microbiological contaminant: the name of the contaminants to be analyzed.

²—CAS (Chemical Abstract Service Number) Registry No. or Identification Number: a unique number identifying the chemical contaminants.

³—Analytical Methods: method numbers identifying the methods that must be used to test the contaminants.

⁴—Minimum Reporting Level: the value and unit of measure at or above which the concentration or density of the contaminant must be measured using the Approved Analytical Methods.

⁵—Sampling Location: the locations within a PWS at which samples must be collected.

⁶—Years During Which Monitoring to be Completed: The years during which the sampling and testing are to occur for the indicated contaminant.

The procedures shall be done in accordance with the documents listed next in these footnotes. The incorporation by reference of the following documents listed in footnotes b-d, i, k and l was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the following sources. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Documents may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460 (Telephone: 202-260-3027); or at the Office of FEDERAL REGISTER, 800 North Capitol Street, NW., Suite 700, Washington, DC.

^aThe version of the EPA methods which you must follow for this Rule are listed at § 141.24 (e).

^bAnnual Book of ASTM Standards, 1996, 1998 and 1999, Vol. 11.02, American Society for Testing and Materials. Method D5812-96, "Standard Test Method for Determination of Organochlorine Pesticides in Water by Capillary Column Gas Chromatography", is located in the Annual Book of ASTM Standards, 1998 and 1999, Vol. 11.02. Methods D5790-95, "Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry"; D5475-93, "Standard Test Method for Nitrogen- and Phosphorus-Containing Pesticides in Water by Gas Chromatography with a Nitrogen-Phosphorus Detector"; and D5317-93, "Standard Test Method for Determination of Chlorinated Organic Acid Compounds in Water by Gas Chromatography with an Electron Capture Detector" are located in the Annual Book of ASTM Standards, 1996 and 1998, Vol 11.02. Copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428.

^cOfficial Methods of Analysis of AOAC (Association of Official Analytical Chemist) International, Sixteenth Edition, 4th Revision, 1998, Volume I, AOAC International, First Union National Bank Lockbox, PO Box 75198, Baltimore, MD 21275-5198. 800-379-2622.

^dSM 6210 D is only found in the 18th and 19th editions of Standard Methods for the Examination of Water and Wastewater, 1992 and 1995, American Public Health Association; either edition may be used. SM 6200 B and 6200 C are only found in the 20th edition of Standard Methods for the Examination of Water and Wastewater, 1998. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street NW, Washington, DC 20005.

^eMinimum Reporting Level determined by multiplying by 10 the least sensitive method's detection limit (detection limit = standard deviation times the Student's t value for 99% confidence level with n-1 degrees of freedom), or when available, multiplying by 5 the least sensitive method's estimated detection limit (where the estimated detection limit equals the concentration of compound yielding approximately a 5 to 1 signal to noise ratio or the calculated detection limit, whichever is greater).

^fEntry Points to the Distribution System (EPTDS), after treatment, representing each non-emergency water source in use over the twelve-month period of monitoring: this only includes entry points for sources in operation during the months in which sampling is to occur. Sampling must occur at the EPTDS, unless the State has specified other sampling points that are used for compliance monitoring under 40 CFR 141.24 (f)(1), (2), and (3). See 40 CFR 141.40(a)(5)(ii)(C) for a complete explanation of requirements, including the use of source (raw) water sampling points.

^gMinimum Reporting Levels (MRL) for Volatile Organic Compounds (VOC) determined by multiplying either the published detection limit or 0.5 µg/L times 10, whichever is greater. The detection limit of 0.5 µg/L (0.0005 mg/L) was selected to conform to VOC detection limit requirements of 40 CFR 141.24(f)(17)(E).

^hThe approved methods do not allow for the identification and quantitation of the individual acids. The single analytical result obtained should be reported as total DCPA mono- and di-acid degradates.

ⁱEPA Method 515.3, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatography with Electron Capture Detection," Revision 1.0 July 1996. EPA 815-R-00-014, "Methods for the Determination of Organic and Inorganic compounds in Drinking Water, Volume 1," August 2000. Available from the National Technical Information Service, NTIS PB2000-106981, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800-553-6847. Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

^jSince EPA Method 515.3 does not include a solvent wash step following hydrolysis, the parent DCPA is not removed prior to analysis, therefore, only non-detect data may be reported using EPA Method 515.3. All samples with results above the MRL must be analyzed by one of the other approved methods.

^kEPA Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization and Fast Gas Chromatography with Electron Capture Detection," Revision 1.0, April 2000, EPA #815/B-00/001. Available by requesting a copy from the EPA Safe Drinking Water Hotline within the United States at 800-426-4791 (Hours are Monday through Friday, excluding federal holidays, from 9 a.m. to 5:30 p.m. Eastern Time). Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

^lEPA Method 314.0, "Determination of Perchlorate in Drinking Water Using Ion Chromatography," Revision 1.0, EPA 815-B-99-003, November 1999. EPA 815-R-00-014, "Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1," August 2000. Available from the National Technical Information Service, NTIS PB2000-106981, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800-553-6847. Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

^mMRL was established at a concentration, which is at least 1/4th the lowest known adverse health concentration, at which acceptable precision and accuracy has been demonstrated in spiked matrix samples.

ⁿSample preservation techniques and holding times specified in EPA Method 524.2 must be used by laboratories using either EPA Method 502.2 or Standard Methods 6200C.

List 2—screening survey chemical contaminants

| 1-contaminant | 2-CAS registry number | 3-Analytical methods | 4-Minimum reporting level | 5-sampling location | 6-Period during which monitoring to be completed |
|-----------------------------|-----------------------------|-----------------------------------|-------------------------------|-----------------------------|--|
| 1,2-diphenylhydrazine | 122-66-7 | EPA Method 526 ^a | 0.5 µg/L | EPTDS ^e | 2001—Selected Systems serving ≤10,000 persons; 2002—Selected systems serving > 10,000 persons. |
| 2-methyl-phenol | 95-48-7 | EPA Method 528 ^b | 1 µg/L ^f | EPTDS ^e | Same as above. |
| 2,4-dichlorophenol | 120-83-2 | EPA Method 528 ^b | 1 µg/L ^f | EPTDS ^e | Same as above. |
| 2,4-dinitrophenol | 51-28-5 | EPA Method 528 ^b | 5 µg/L ^f | EPTDS ^e | Same as above. |
| 2,4,6-trichlorophenol | 88-06-2 | EPA Method 528 ^b | 1 µg/L ^f | EPTDS ^e | Same as above. |
| Alachlor ESA | Reserved ^d | Reserved ^d | Reserved ^d | Reserved ^d | Reserved ^d |
| Diazinon | 333-41-5 | EPA Method 526 ^a | 0.5 µg/L ^f | EPTDS ^e | 2001—Selected Systems serving ≤10,000 persons; 2002—Selected systems serving > 10,000 persons. |
| Disulfoton | 298-04-4 | EPA Method 526 ^a | 0.5 µg/L ^f | EPTDS ^e | Same as above. |
| Diuron | 330-54-1 | EPA Method 532 ^c | 1 µg/L ^f | EPTDS ^e | Same as above. |
| Fonofos | 944-22-9 | EPA Method 526 ^a | 0.5 µg/L ^f | EPTDS ^e | Same as above. |
| Linuron | 330-55-2 | EPA Method 532 ^c | 1 µg/L ^f | EPTDS ^e | Same as above. |
| Nitrobenzene | 98-95-3 | EPA Method 526 ^a | 0.5 µg/L ^f | EPTDS ^e | Same as above. |
| Prometon | 1610-18-0 | EPA Method 526 ^a | 0.5 µg/L ^f | EPTDS ^e | Same as above. |
| RDX | 121-82-4 | Reserved ^d | Reserved ^d | Reserved ^d | Reserved ^d . |
| Terbufos | 13071-79-9 | EPA Method 526 ^a | 0.5 µg/L ^{f,k} | EPTDS ^e | 2001—Selected Systems serving ≤10,000 persons; 2002—Selected systems serving > 10,000 persons. |

List 2—screening survey microbiological contaminants to be sampled after notice of analytical methods availability

| 1-contaminant | 2-identification number | 3-analytical methods | 4-minimum reporting level | 5-sampling location | 6-period during which monitoring to be completed |
|------------------------|-------------------------|-----------------------------|-----------------------------|--------------------------------------|--|
| <i>Aeromonas</i> | NA | Reserved ^d | Reserved ^d | Distribution System ^g ... | 2003 ^h |

Column headings are:

¹—Chemical or microbiological contaminant: the name of the contaminants to be analyzed.

²—CAS (Chemical Abstract Service Number) Registry No. or Identification Number: a unique number identifying the chemical contaminants.

³—Analytical Methods: method numbers identifying the methods that must be used to test the contaminants.

⁴—Minimum Reporting Level: the value and unit of measure at or above which the concentration or density of the contaminant must be measured using the Approved Analytical Methods.

⁵—Sampling Location: the locations within a PWS at which samples must be collected.

⁶—Years During Which Monitoring to be Completed: the years during which the sampling and testing are to occur for the indicated contaminant.

The procedures shall be done in accordance with the documents listed next in these footnotes. The incorporation by reference of the following documents listed in footnotes a–c, was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the following sources. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Copies of the documents may be obtained from the sources listed in these footnotes. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Documents may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460 (Telephone: 202-260-3027); or at the Office of Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

^aEPA Method 526, "Determination of Selected Semivolatile Organic Compounds in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS)," Revision 1.0, June 2000. EPA 815-R-00-014, "Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1," August 2000. Available from the National Technical Information Service, NTIS PB2000-106981, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800-553-6847. Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

^b EPA Method 528, "Determination of Phenols in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS)," Revision 1.0, April 2000. EPA 815-R-00-014, "Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1," August 2000. Available from the National Technical Information Service, NTIS PB2000-106981, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800-553-6847. Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/nerlcwww/ordmeth.htm.

^c EPA Method 532, "Determination of Phenylurea Compounds in Drinking Water by Solid Phase Extraction and High Performance Liquid Chromatography with UV Detection," Revision 1.0, June 2000. EPA 815-R-00-014, "Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1," August 2000. Available from the National Technical Information Service, NTIS PB2000-106981, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800-553-6847. Alternatively, the method can be assessed and downloaded directly on-line at www.epa.gov/safewater/methods/sourcalt.html.

^d To be specified at a later time.

^e Entry Points to the Distribution System (EPTDS), after treatment, representing each non-emergency water source in use over the twelve-month period of monitoring: this only includes entry points for sources in operation during the months in which sampling is to occur. Sampling must occur at the EPTDS, source water sampling points are not permitted for List 2 contaminant monitoring.

^f Minimum Reporting Level represents the value of the lowest concentration precision and accuracy determination made during methods development and documented in the method. If method options are permitted, the concentration used was for the least sensitive option.

^g Three samples must be taken from the distribution system, which is owned or controlled by the selected PWS. The sample locations must include one sample from a point (MD from § 141.35(d)(3), Table 1) where the disinfectant residual is representative of the distribution system. This sample location may be selected from sample locations which have been previously identified for samples to be analyzed for coliform indicator bacteria. Coliform sample locations encompass a variety of sites including midpoint samples which may contain a disinfectant residual that is typical of the system. Coliform sample locations are described in 40 CFR 141.21. This same approach must be used for the *Aeromonas* midpoint sample where the disinfectant residual would not have declined and would be typical for the distribution system. Additionally, two samples must be taken from two different locations: the distal or dead-end location in the distribution system (MR from § 141.35(d)(3), Table 1), avoiding disinfectant booster stations, and from a location where previous determinations have indicated the lowest disinfectant residual in the distribution system (LD from § 141.35(d)(3), Table 1). If these two locations of distal and low disinfectant residual sites coincide, then the second sample must be taken at a location between the MD and MR sites. Locations in the distribution system where the disinfectant residual is expected to be low are similar to TTHM sampling points. Sampling locations for TTHMs are described in 63 FR 69468.

^h This monitoring period is contingent upon promulgation of the analytical method and minimum reporting level.

List 3—Pre-screen testing radionuclides to be sampled after notice of analytical methods availability

| 1-contaminant | 2-CAS registry number | 3-Analytical methods | 4-Minimum reporting level | 5-Sampling location | 6-Period during which monitoring to be completed |
|--------------------|-----------------------|-----------------------------|-----------------------------|-----------------------------|--|
| Lead-210 | 14255-04-0 | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Polonium-210 | 13981-52-7 | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |

List 3—Pre-screen testing microorganisms to be sampled after notice of analytical methods availability

| 1-contaminant | 2-identification number | 3-Analytical methods | 4-Minimum reporting level | 5-Sampling location | 6-Period during which monitoring to be completed |
|--|-------------------------|-----------------------------|-----------------------------|-----------------------------|--|
| Cyanobacteria (blue-green algae, other freshwater algae and their toxins). | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Echoviruses | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Coxsackieviruses | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Helicobacter pylori | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Microsporidia | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Calciroviruses | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |
| Adenoviruses | Reserved ^a | Reserved ^a | Reserved ^a | Reserved ^a | Reserved. ^a |

Column headings are:

1—Chemical or microbiological contaminant: the name of the contaminants to be analyzed.

2—CAS (Chemical Abstract Service Number) Registry No. or Identification Number: a unique number identifying the chemical contaminants.

3—Analytical Methods: method numbers identifying the methods that must be used to test the contaminants.

4—Minimum Reporting Level: the value and unit of measure at or above which the concentration or density of the contaminant must be measured using the Approved Analytical Methods.

5—Sampling Location: the locations within a PWS at which samples must be collected.

6—Years During Which Monitoring to be Completed: the years during which the sampling and testing are to occur for the indicated contaminant.

^a To be determined at a later time.

* * * * *

(4) * * *

(i) * * *

TABLE 2.—WATER QUALITY PARAMETERS TO BE MONITORED WITH UCMR CONTAMINANTS

| Parameter | Contaminant type | Analytical methods | | |
|-----------------|-----------------------|---|-------------------------------|---|
| | | EPA method | Standard methods ¹ | Other |
| pH | Microbiological | EPA Method 150.1 ² , EPA Method 150.2 ² . | 4500-H ⁺ B | ASTM D1293-84 ³ , ASTM D1293-95 ³ . |
| Turbidity | Microbiological | EPA Method 180.1 ^{4,5} | 2130 B ⁴ | GLI Method 2 ^{4,6} . |

TABLE 2.—WATER QUALITY PARAMETERS TO BE MONITORED WITH UCMR CONTAMINANTS—Continued

| Parameter | Contaminant type | Analytical methods | | |
|-----------------------------|-----------------------|--------------------|--|-----------------------------|
| | | EPA method | Standard methods ¹ | Other |
| Temperature | Microbiological | | 2550. | |
| Free Disinfectant Residual | Microbiological | | 4500—Cl D, 4500—Cl F, 4500—Cl G, 4500—Cl H, 4500—ClO ₂ D, 4500—ClO ₂ E, 4500—O ₃ B. | ASTM 1253—86 ³ |
| Total Disinfectant Residual | Microbiological | | 4500—Cl D, 4500—Cl E, ⁴ 4500—Cl F, 4500—Cl G ⁴ , 4500—Cl I. | ASTM D 1253—86 ³ |

The procedures shall be done in accordance with the documents listed in these footnotes. The incorporation by reference of the following documents was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the sources listed in these footnotes. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Documents may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460 (Telephone: 202-260-3027); or at the Office of Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

¹ The 18th and 19th Editions of *Standard Methods for the Examination of Water and Wastewater*, 1992 and 1995. Methods 2130 B; 2550; 4500—Cl D, E, F, G, H, I; 4500—ClO₂ D, E; 4500—H⁺ B; and 4500—O₃ B in the 20th edition *Standard Methods for the Examination of Water and Wastewater*, 1998, American Public Health Association, 1015 Fifteenth St. NW, Washington D.C., 20005.

² EPA Methods 150.1 and 150.2 are available from US EPA, NERL, 26 W. Martin Luther King Dr., Cincinnati, Ohio 45268. The identical methods are also in "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1983, available from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, Virginia 22161, PB84-128677. (Note: NTIS toll-free number is 800-553-6847.)

³ *Annual Book of ASTM Standards*, Editions 1994, 1996, 1998 and 1999, Volumes 11.01, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428. Version D1293-84, "Standard Test Methods for pH of Water" is located in the *Annual Book of ASTM Standards*, 1994, Volumes 11.01. Version D1293-95, "Standard Test Methods for pH of Water" is located in the *Annual Book of ASTM Standards*, 1996, 1998 and 1999, Volumes 11.01.

⁴ "Technical Notes on Drinking Water," EPA-600/R-94-173, October 1994, Available at NTIS, PB95-104766.

⁵ "Methods for the Determination of Inorganic Substances in Environmental Samples," EPA-600/R-93-100, August 1993. Available at NTIS, PB94-121811

⁶ GLI Method 2, "Turbidity," November 2, 1992, Great Lakes Instruments Inc., 8855 North 55th St., Milwaukee, Wisconsin 53223.

* * * * *
(5) * * *
(ii) * * *

(B) *Frequency*. You must collect the samples within the timeframe and according to the following frequency specified by contaminant type and water source type:

TABLE 3.—MONITORING FREQUENCY BY CONTAMINANT AND WATER SOURCE TYPES

| Contaminant type | Water source type | Timeframe | Frequency |
|-----------------------|--------------------------|--------------------------|---|
| Chemical | Surface water | Twelve (12) months | Four quarterly samples taken as follows: Select either the first, second, or third month of a quarter and sample in that same month of each of four (4) consecutive quarters ^a to ensure that one of those sampling events occurs during the vulnerable time. ^b |
| | Ground water | Twelve (12) months | Two (2) times in a year taken as follows: Sample during one (1) month of the vulnerable time ^b and during one (1) month five (5) to seven (7) months earlier or later. ^c |
| Microbiological | Surface and ground water | Twelve (12) months | Six (6) times in a year taken as follows: Select either the first, second, or third month of a quarter and sample in that same month of each of four (4) consecutive quarters, and sample an additional 2 months during the warmest (vulnerable) quarter of the year. ^d |

^a "Select either the first, second, or third month of a quarter and sample in that same month of each of four (4) consecutive quarters" means that you must monitor during each of the four (4) months of either: January, April, July, October; or February, May, August, November; or March, June, September, December.

^b "Vulnerable time" means May 1 through July 31, unless the State or EPA informs you that it has selected a different time period for sampling as your system's vulnerable time.

^c "Sample during one (1) month of the vulnerable time and during one (1) month five (5) to seven (7) months earlier or later" means, for example, that if you select May as your "vulnerable time" month to sample, then one (1) month five (5) to seven (7) months earlier would be either October, November or December of the preceding year, and one (1) month five (5) to seven (7) months later would be either, October, November, or December of the same year.

^d This means that you must monitor during each of the six (6) months of either: January, April, July, August, September, October; or February, May, July, August, September, November; or March, June, July, August, September, December; unless the State or EPA informs you that a different vulnerable quarter has been selected for your system.

(C) *Location*. You must collect samples at the location specified for each listed contaminant in column 5 of the Table 1, UCMR (1999) List, in

paragraph (a)(3) of this section. The sampling location for chemical contaminants must be the entry point to the distribution system or the

compliance monitoring point specified by the State or EPA under 40 CFR 141.24 (f)(1), (2), and (3). Except as provided in this paragraph (a)(5)(ii)(C),

if the compliance monitoring point as specified by the State is for source (raw) water and any of the contaminants in paragraph (a)(3) of this section are detected, then you must complete the source water monitoring for the indicated timeframe and also sample at the entry point to the distribution system representative of the affected source water only for the contaminant(s) found in the source water over the next twelve month timeframe, beginning in the next required monitoring period as indicated in paragraph (a)(5)(ii)(B), Table 3 of this section, even though monitoring might extend beyond the last year indicated in column 6, Period during which monitoring to be completed, in Table 1 of paragraph (a)(3). Exception: If the State or EPA determines that sampling at the entry point to the distribution system is unnecessary because no treatment was instituted between the source water and the distribution system that would affect measurement of the contaminants listed in paragraph (a)(3) of this section, then you do not have to sample at the entry point to the distribution system. Note: The sampling for List 2 chemical contaminants must be at the entry point to the distribution system, as specified in Table 1, List 2.

(G) *Testing.* (1) Except as provided in paragraph (a)(5)(ii)(G)(2) and (3) of this section, you must arrange for the testing of the contaminants identified in List 1 of Table 1 by a laboratory certified under § 141.28 for compliance analysis using any of the analytical methods listed in column 3 for each contaminant in List 1 of Table 1, Unregulated Contaminant Monitoring Regulation (1999) List, in paragraph (a)(3) of this section, whether you use the EPA analytical methods or non-EPA methods listed in List 1 of Table 1. Laboratories are automatically certified for the analysis of UCMR contaminants in List 1 of Table 1 if they are already certified to conduct compliance monitoring for a contaminant included in the same method being approved for UCMR analysis.

(2) You must arrange for the testing of Perchlorate as identified in List 1 of Table 1 by a laboratory certified under § 141.28 for compliance analysis using an approved ion chromatographic method as listed in § 141.28 and that has analyzed and successfully passed the Performance Testing (PT) Program administered by EPA.

(3) You must arrange for the testing of the chemical contaminants identified in List 2 of Table 1 by a laboratory certified under § 141.28 for compliance analysis

using EPA Method 525.2 if performing UCMR analysis using EPA Methods 526 or 528, or a laboratory certified under § 141.28 for compliance analysis using EPA Methods 549.1 or 549.2 if performing UCMR analysis using EPA Method 532. You must arrange for the testing for *Aeromonas* using the approved method as identified in List 2 of Table 1 by a laboratory which is both certified under § 141.28 for compliance analysis for coliform indicator bacteria using an EPA approved membrane filtration procedure and which also has been granted approval for UCMR monitoring of *Aeromonas* by successfully passing the *Aeromonas* Performance Testing (PT) Program administered by EPA.

* * * * *

(7) * * *

(i) *All systems.* You must:

(A) Analyze the additional parameters specified in paragraph § 141.40(a)(4)(i), Table 2, "Water Quality Parameters to be Monitored with UCMR

Contaminants" for each relevant contaminant type. You must analyze the parameters for each sampling event of each sampling point, using the method indicated, and report the results using the data elements 1 through 10 in Table 1, § 141.35(d), Unregulated Contaminant Monitoring Reporting requirements;

(B) Review the laboratory results to ensure reliability; and

(C) Report the results as specified in § 141.35.

(ii) *Large systems.* If your system serves over 10,000 persons, you must collect and arrange for testing of the contaminants in List 2 and List 3 of Table 1, Unregulated Contaminant Monitoring Regulation (1999) List, in paragraph (a)(3) of this section, in accordance with the requirements set out in paragraphs (a)(4) and (5) of this section, with one exception: you must sample only at sampling locations specified in Table 1. You must send the samples to one of the laboratories approved under paragraph (G), this section. You are also responsible for reporting these results as required in § 141.35.

(iii) *Small systems.* If your system serves 10,000 or fewer persons, you must collect samples in accordance with the instructions sent to you by the EPA or State, or, if informed by the EPA or State that the EPA or State will collect the sample, you must assist the State or EPA in identifying the appropriate sampling locations and in taking the samples. EPA will report the results to you and the State.

* * * * *

(b) * * *

(1) * * *

(ix) *Revise system's treatment plant location(s) to include latitude and longitude.* For reporting to the Safe Drinking Water Information System, EPA already requires reporting of either the latitude and longitude or the street address for the treatment plant location. If the State enters into an MOA, the State must report each system's treatment plant location(s) as latitude and longitude (in addition to street address, if previously reported) by the time of the system's reporting of Assessment Monitoring results to the National Drinking Water Contaminant Occurrence Database. The State may use the latitude and longitude of facilities related to the public water system on the same site, or closely adjacent to the same site as the treatment plant, such as the latitude and longitude of the intake or wellhead/field or the entry point to the distribution system, if such measurements are available.

* * * * *

Appendix A to § 141.40—Quality Control Requirements for Testing All Samples Collected

* * * * *

(2) *Detection Limit.* Calculate the laboratory detection limit for each contaminant in Table 1, Unregulated Contaminant Monitoring Regulation (1999) List, of paragraph (a)(3) of this section using the appropriate procedure in the specified method with the exception that the contaminant concentration used to fortify reagent water must be less than or equal to the minimum reporting level (MRL) for the contaminants as specified in column 4, Table 1, UCMR (1999) List, in paragraph (a)(3) of this section. The calculated detection limit is equal to the standard deviation times the Student's t value for 99% confidence level with n-1 degrees of freedom. (The detection limit must be less than or equal to one-half of the MRL.)

* * * * *

(9) *Detection Confirmation.* Confirm any chemical contaminant analyzed using a gas chromatographic method and detected above the MRL, by gas chromatographic/mass spectrometric (GC/MS) methods. If testing resulted in first analyzing the sample extracts via specified gas chromatographic methods, an initial confirmation by a second column dissimilar to the primary column may be performed. If the contaminant detection is confirmed by the secondary column, then the contaminant must be reconfirmed by GC/MS using three (3) specified ion peaks for contaminant identification. Use one of the following confirming techniques: perform single point calibration of the GC/MS system for confirmation purposes only as long as the calibration standard is at a concentration within ± 50% of the concentration determined by the initial analysis; or perform a three (3) point calibration with single point daily calibration verification of the GC/MS

system regardless of whether that verification standard concentration is within $\pm 50\%$ of sample response. If GC/MS analysis confirms the initial contaminant detection, report results determined from the initial analysis.

* * * * *

(11) Method Defined Quality Control. As appropriate to the method's requirements, perform analysis of Laboratory Fortified Blanks and Laboratory Performance Checks as specified in the method. Each method specifies acceptance criteria for these quality control checks.

[FR Doc. 01-59 Filed 1-10-01; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[OPP-301099; FRL-6762-5]

RIN 2070-AB78

Clopyralid; Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation amends tolerances for residues of clopyralid (3,6-dichloro-2-pyridinecarboxylic acid) in or on sugar beet roots and sugar beet tops. In addition, this regulation establishes a tolerance for sugar beet molasses. Finally, the established tolerances for barley forage and milled fractions of barley, oats and wheat are being added back to the tolerance expression for clopyralid after being inadvertently deleted. Dow AgroSciences LLC requested this tolerance under the Federal Food, Drug, and Cosmetic Act, as amended by the Food Quality Protection Act of 1996.

DATES: This regulation is effective January 11, 2001. Objections and requests for hearings, identified by docket control number OPP-301099, must be received by EPA on or before March 12, 2001.

ADDRESSES: Written objections and hearing requests may be submitted by mail, in person, or by courier. Please follow the detailed instructions for each method as provided in Unit VI. of the **SUPPLEMENTARY INFORMATION**. To ensure proper receipt by EPA, your objections and hearing requests must identify docket control number OPP-301099 in the subject line on the first page of your response.

FOR FURTHER INFORMATION CONTACT: By mail: Joanne I. Miller, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave.,

NW., Washington, DC 20460; telephone number: (703) 305-6224; and e-mail address: miller.joanne@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

You may be affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. Potentially affected categories and entities may include, but are not limited to:

| Categories | NAICS codes | Examples of potentially affected entities |
|------------|----------------------------|---|
| Industry | 111 112 311 32532 | Crop production Animal production Food manufacturing Pesticide manufacturing |

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in the table could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether or not this action might apply to certain entities. If you have questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How Can I Get Additional Information, Including Copies of this Document and Other Related Documents?

1. *Electronically.* You may obtain electronic copies of this document, and certain other related documents that might be available electronically, from the EPA Internet Home Page at <http://www.epa.gov/>. To access this document, on the Home Page select "Laws and Regulations", "Regulations and Proposed Rules," and then look up the entry for this document under the "**Federal Register**—Environmental Documents." You can also go directly to the **Federal Register** listings at <http://www.epa.gov/fedrgrstr/>. To access the OPPTS Harmonized Guidelines referenced in this document, go directly to the guidelines at <http://www.epa.gov/opptsfrs/home/guidelin.htm>.

2. *In person.* The Agency has established an official record for this action under docket control number OPP-301099. The official record consists of the documents specifically referenced in this action, and other information related to this action,

including any information claimed as Confidential Business Information (CBI). This official record includes the documents that are physically located in the docket, as well as the documents that are referenced in those documents. The public version of the official record does not include any information claimed as CBI. The public version of the official record, which includes printed, paper versions of any electronic comments submitted during an applicable comment period is available for inspection in the Public Information and Records Integrity Branch (PIRIB), Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The PIRIB telephone number is (703) 305-5805.

II. Background and Statutory Findings

In the **Federal Register** of February 9, 1999 (64 FR 6351) (FRL-6058-3), EPA issued a notice pursuant to section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a as amended by the Food Quality Protection Act of 1996 (FQPA) (Public Law 104-170) announcing the filing of a pesticide petition (PP 8F3600) for tolerance by Dow AgroSciences LLC, 9330 Zionsville Road, Indianapolis, IN 46268. This notice included a summary of the petition prepared by Dow AgroSciences LLC, the registrant. There were no comments received in response to the notice of filing.

The petition requested that 40 CFR 180.431 be amended by establishing tolerances for residues of the herbicide clopyralid (3,6-dichloro-2-pyridinecarboxylic acid) in or on sugar beet roots at 2.0 parts per million (ppm), sugar beet tops at 3.0 ppm, and sugar beet molasses at 16.0 ppm.

Section 408(b)(2)(A)(i) of the FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is "safe." Section 408(b)(2)(A)(ii) defines "safe" to mean that "there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information." This includes exposure through drinking water and in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance and to "ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate