

Special Personnel Training Requirements Table		Page
1	2	3

[illegible]

*If training records and/or certificates are on file elsewhere, then document their location in this column. If training records and/or certificates do not exist or are not available, then this should be noted.

EPA-NE QAPP Worksheet #7 - Rev. 10/99

Provide the following information for those projects requiring specialized training. Attach training records and/or certificates to this worksheet. (Refer to *QAPP Manual* Section 4.4 for guidance.)

NH

Title: NE States, DW QAPP, NH
Revision Number: 1
Revision Date: 10/10/01
Page: 1 of 1

Special Personnel Training Requirements Table

Project Function	Specialized Training Title of Course or Description	Training Provided By	Training Date	Personnel/Groups Receiving Training	Personnel Titles/ Organizational Affiliation	Location of Training Records/Certificates*
Water Sampling	Sample Collection and Preservation	DES Laboratory, DES Sanitary Survey Engineer	As Needed	Sanitary Surveyors, Environmentalists, Engineers	DES, Environmentalists I-IV, Engineers	DES Laboratory
Technical Assistance	Technical Assistance, Computer Training, Communication Skills	WSEB Chief Engineer, NH Bureau of Education	As Needed	Computer, Monitoring, Office and Engineering Staff	DES, Environmentalist I-IV, Engineers I-V, Administration	DES, Concord

*If training records and/or certificates are on file elsewhere, then document their location in this column. If training records and/or certificates do not exist or are not available, then this should be noted.

63

EPA-NE QAPP Worksheet #7 - Rev. 10/99

Provide the following information for those projects requiring specialized training. Attach training records and/or certificates to this worksheet. (Refer to *QAPP Manual* Section 4.4 for guidance.)

ET

Title:
Revision Number:
Revision Date:
Page: of

Special Personnel Training Requirements Table

Project Function	Specialized Training Title of Course or Description	Training Provided By	Training Date	Personnel/Groups Receiving Training	Personnel Titles/ Organizational Affiliation	Location of Training Records/Certificates*
	Organics Sampling	Chief Sanitarian or Laboratory Supervisor	OJT as needed	Marie Callan, John Kachanis, Fred Kurdziel, Sue Cunningham, Rich Amirault	Sanitarian, Sr. Sanitarian, Env. Scientist, Records Analyst, Hydrogeologist/DWQ HEALTH	Not applicable
	Inorganics Sampling	Chief Sanitarian or Laboratory Supervisor	OJT as needed	Marie Callan, John Kachanis, Fred Kurdziel, Sue Cunningham, Rich Amirault	Sanitarian, Sr. Sanitarian, Env. Scientist, Records Analyst, Hydrogeologist/DWQ HEALTH	Not applicable
	Microbiology Sampling	Chief Sanitarian or Laboratory Supervisor	OJT as needed	Marie Callan, John Kachanis, Fred Kurdziel, Sue Cunningham, Rich Amirault	Sanitarian, Sr. Sanitarian, Env. Scientist, Records Analyst, Hydrogeologist/DWQ HEALTH	Not applicable
	Radiochemistry Sampling	Chief Sanitarian or Laboratory Supervisor	OJT as needed	Marie Callan, John Kachanis, Fred Kurdziel, Sue Cunningham, Rich Amirault	Sanitarian, Sr. Sanitarian, Env. Scientist, Records Analyst, Hydrogeologist/DWQ HEALTH	Not applicable

Provide the following information for those projects requiring specialized training. Attach training records and/or certificates to this worksheet. (Refer to *QAPP Manual* Section 4.4 for guidance.)

Title: Vermont
Revision Number:
Revision Date:
Page: of

Special Personnel Training Requirements Table

[illegible]

*If training records and/or certificates are on file elsewhere, then document their location in this column. If training records and/or certificates do not exist or are not available, then this should be noted.

Worksheet #8a

Project Planning Attendance

Please see Worksheet #2, Question 5, for a list of planning sessions and the list of workgroup participants which immediately follows the title page.

Worksheets #8b and #9a

Project Definition, Background and Description

Outline: This discussion covers the following topics:

- A. Implementation of regulations.
- B. Plan review procedures.
- C. Data and information management.
- D. Sanitary surveys.
- E. Enforcement strategy.
- F. Training, education and outreach.

A. Implementation of regulations.

1. Introduction: The responsibilities of State Primacy Agencies are based on U.S. EPA regulations as given in the requirements of the Safe Drinking Water Act (SDWA) and its amendments. The regulatory development, adoption process and implementation procedures are described in the following narrative.

The procedures each State follows for review and modification of existing drinking water regulations under state jurisdiction and for the development of new regulations that may be required pursuant to the SDWA are given below. The plan is compatible with procedures in effect for regulatory development.

Staff systematically review all existing regulations routinely enforced by each State Primacy Agency by tracking new regulatory requirements initiated by SDWA amendments. The following process accomplishes coordination of activities from initial notification and review to final regulation development or modification.

2. Regulatory Implementation: An essential component of regulatory implementation includes ongoing communication with public water systems. Systems are notified of upcoming regulatory mandates and provided technical assistance as necessary. Staff maintain oversight of public water systems by review of water quality monitoring and reporting requirements; completion of sanitary surveys; review, inspection and approval of all infrastructure and new sources; review and approval of treatment techniques and plans, financial and managerial systems; and initiation of enforcement actions. Training, informational materials, technical workshops and various assistance programs are also provided to system owners/operators to achieve and maintain system regulatory compliance.
3. Regulatory adoption process for each state:
 - a. Connecticut & Maine – Regulatory revision. The staff coordinates modifications to all drinking water related regulations and tracks the required steps for finalization and adoption of regulatory changes as follows:
 - (1) Subsequent to initial notification, proposed modifications are reviewed by staff and forwarded for processing which includes:
 - Consideration of issues related to proposed modification.
 - Drafting and reviewing language and proposed modifications.

- Preparation of the "package" of proposed modifications.
- (2) After the package is prepared, it is circulated to appropriate staff for review, comment and final approval.
- (3) Concept paper and fiscal note for the final package are prepared.
- (4) Package is submitted to appropriate offices for final approvals/signatures.
- (5) Notice of intent to promulgate and/or amend regulations is published in the Law Journal.
- (6) Regulations are sent to the Public Health Committee, the Regulations Review Committee, and the Attorney General's (AG) Office for informal review.
- (7) Public Hearing: 30 days after publication of notice in Law Journal. Written comments may be submitted prior to the hearing, written testimony may be submitted at the hearing, and oral presentations may be made at the hearing.
- (8) Appropriate office provides a written response to commenters.
- (9) Regulations are sent to AG's office for formal review. The AG has 30 days to approve. Note: the AG's office may return the regulations to the Department. The necessary changes are made, and the regulations are resubmitted to the AG, who has an additional 30 days to review and approve them.
- (10) Submit regulations to Regulation Review Committee which may:
 - Approve in whole.
 - Reject without prejudice. Revisions will be made, the regulations will be resubmitted to the AG for review (30 days) and then resubmitted to the Regulation Review Committee.
 - Reject with prejudice (unusual).
- (11) Following final approval, the regulations are submitted to the Secretary of State. They are considered effective on the day submitted. Such regulations are not enforceable unless or until those affected have written notification of the regulations or the Law Journal publishes the regulations.
- (12) Staff tracks the progress of the package through adoption.
- (13) Once a regulation is adopted, notice is provided to constituents through appropriate means, e.g., mass mailing, and technical assistance is provided as necessary in response to constituents' requirements.
- (14) Staff carries out compliance monitoring and evaluates returns (reports, surveys, etc.) for compliance determination and for follow-up, technical assistance or enforcement action.
- (15) Regulations are reviewed for modification as necessary.

b. Massachusetts -- Regulatory revision. Staff coordinate modifications to all drinking water related regulations and track the required steps for finalization and adoption of regulatory changes.

- (1) Staff review and incorporate SDWA amendments into the State's proposed drinking water regulations revision package.
- (2) Program staff review proposed revisions, and prepare draft regulation package.
- (3) Regulation package is submitted to staff and advisory groups for discussion and comments.
- (4) Edited regulation package is submitted for review to the Department's Commissioner, upper level management and legal staff for signature.
- (5) The revised regulation package is sent to other state agencies that may have an interest in the proposed regulations

- (6) Final draft proposed regulations are sent to the Executive Office of Environmental Affairs (EOEA) and then to the Executive Office for Administration and Finance (A&F) for review and approval.
- (7) Once approved by A&F, the proposed regulations are submitted to the Secretary of State.
- (8) Public Hearing Notices are published 21 days prior to the public hearing. Public comment period begins and continues through the public hearings scheduled throughout the state.
- (9) Program staff review all comments and prepare and route final revisions to appropriate staff and legal office for final review. Package includes a summary of responses and comments.
- (10) EOEA and A&F review final package.
- (11) A&F approves regulations, and they are submitted to the Secretary of State for adoption.

c. Connecticut, Maine & Massachusetts -- New regulations.

- (1) Subsequent to initial notification, staff tracks U.S. EPA regulatory development, utilizing ASDWA, AWWA, *Federal Register*, workshops, conferences, etc.
- (2) Appropriate staff review EPA proposed regulation.
- (3) When EPA regulation is finalized, staff develops draft proposed regulations.
- (4) Go to A.3.a(1) [Modifications to Existing Regulations] for Connecticut and to A.3.c(1) for Massachusetts.

d. New Hampshire.

See flow chart included as an attachment following the text for Worksheets 8b & 9a.

e. Rhode Island.

- (1) Draft changes.
- (2) Optional community review.
- (3) Public notice of public hearing and comment period.
- (4) Public hearing.
- (5) Review and response to comments.
- (6) Regulations adopted or revised.
- (7) If revisions are needed, go back to step A.c.f(3) above.
- (8) If regulation is adopted, then implement and enforce it.
- (9) Attorney general's certification.
- (10) Submission of primacy revision package to EPA.

f. Vermont. A designated Water Supply Division staff person manages a rule revision from inception through adoption.

- (1) Activities prior to rule-making.
 - Agencies within State government are notified of upcoming rule topics and asked to specify any topics for inclusion into the rule.
 - The Division evaluates pre-rule comments and decides on topics to include in addition to new federal regulations. Federal regulations are adopted by reference except for topics made more strict by the Division.
- (2) Department Rule Team procedure followed -- Submit pre rule-making (Form 1) and public participation plan to Rule Team.

- (3) Start on preliminary draft rule and collect Rule Team comments.
- (4) Complete draft rule and Form 2 and send to Rule Team, Agency Commissioners, stakeholders and attorney for initial legal review.
- (5) Redraft preliminary draft rule based on comments and prepare responsiveness summary to comments received.
- (6) Complete Form 3, obtain Rule Team sign-off, and forward proposed rule for a second legal review.
- (7) Send Form 3 and Administrative Procedures Act forms to the Agency Commissioners, Rule Team and stakeholders.
- (8) File proposed rule with the Interagency Committee on Administrative Rules.
- (9) Meet with Interagency Committee on Administrative Rules and receive approval.
- (10) Schedule public meetings.
- (11) Send notice of availability of the draft rule and notice of public meetings to stakeholders and make copies of the rule for public comment. The rule is also posted on the Division Web Site.
- (12) File proposed rule with the Secretary of State's Office. The Secretary of State's Office will publish two notices in the paper announcing the proposed changes and public meetings.
- (13) The Division will hold two public meetings.
- (14) Complete the public comment period and write responsiveness summary to address comments.
- (15) File the rule with the Secretary of Human Services.
- (16) File the rule with the Secretary of State's Office and Legislative Committee on Administrative Rules.
- (17) Division representatives attend the Legislative Committee on Administrative Rules meeting.
- (18) Secure approval from the Legislative Committee on Administrative Rules.
- (19) File final rule with the Secretary of State's Office.
- (20) the final rule effective at least two weeks from the date filed.
- (21) Submit Form 4, a post adoption plan, to the Rule Team.
- (22) Submit Form 5, follow up to adoption, one year later to the Rule Team.

B. Plan review procedures.

1. Purpose

Under the Safe Drinking Water Act, the federal government and states with primary enforcement authority regulate public water systems (PWS) to insure the provision of safe drinking water. Plans for the construction of a new PWS, or the modification of existing systems that may affect the quality or quantity of water produced, must be submitted for Drinking Water Program (DWP) approval prior to the construction of the project.

Before a new public water supply well is drilled, the DWP must review and approve the location where the well will be drilled. Site plans must include the wellhead protection area for the well and a list of potential contamination sources that may affect the well. A financial commitment may also be required, showing a good faith effort.

Before a new public surface water source is developed, the DWP must review and approve the proposed source and the location of the proposed intake. Site plans must include the delineation of the contributing tributaries and the surface water supply protection areas. Land uses in the watershed must also be identified. A financial and managerial commitment may also be required, showing a good faith effort.

2. Exempt Projects

Some maintenance projects and the replacement or installation of water mains may be exempt from the plan and specification submission and facility approval process. Projects funded by the Drinking Water State Revolving Fund (DWSRF) are not exempt from the plan and specification submission requirements.

3. Submission Requirements

Plans and specifications for a new PWS, or significant modifications of an existing system, if requested by the DWP due to the project's complexity, must be prepared by a qualified professional and stamped and signed by a registered Professional Engineer.

For a new public water supply well, the DWP must review and approve the location where the well will be drilled prior to drilling. Site plans must include the wellhead protection area for the well and a list of potential contamination sources that may affect the well.

4. Process – New PWS and Significant Modifications to Existing PWS

Project plans and specifications must be submitted for DWP review and approval prior to construction. (See notes CT-1, MA-1, ME-1, RI-1 and VT-1 at the end of Sec. B.)

5. Process – New Public Water Supply Wells

The DWP determines the required elements necessary in new source approval. Examples of a State's determined new well approval are based on these standards, which may include any of the following:

Before a new well source is drilled, an applicant must complete an application that includes a mailing address, details about the proposed facility, and dates of operation. The applicant must receive preliminary approval of the location where the well will be drilled. In general, an approvable site will be greater than the required minimal distance specified by law or rule from any potential source of contamination. (See notes CT-3, MA-2 and VT-2 at the end of Sec. B.)

If this is not possible or practical at the proposed site, the DWP can grant a waiver to this setback requirement. In order to receive preliminary approval, the applicant must submit an application form, a location map, and a site plan. The applicant must identify potential contamination sources near the well.

A well driller licensed in that state must drill the well.

After the well is drilled, it must be tested to insure that the water meets drinking water standards. The tests must be taken at the conclusion of a pump test. A 48- or 72-hour pump test is required. (See note CT-4 at the end of Sec. B.)

The applicant must receive a letter of final approval from the DWP prior to putting the well on line. Final approval requires the submission of a completed application (describing the characteristics of the well, the date the well was drilled, who drilled it, etc.). All of the results of the required water quality tests must be attached to the application. If the water meets drinking water standards, the applicant will receive a letter of final approval and an ON-LINE NOTICE. This notice must be completed and returned when the well is put on line. It will enable the DWP to notify the applicant of required tests and help to keep the PWS in compliance with the Safe Drinking Water Act.

Notes for Sec. B.

- CT-1 The CTDPH must be notified before entering into a financial commitment for a new public water system or increasing the capacity of an existing public water system, and the approval of the CTDPH must be obtained before any construction is begun. A 60 to 90 day review period should be anticipated for plans and specs. This includes construction of supply and treatment works, transmission lines, storage tanks, pumping stations and other works of sanitary significance. It does not include the routine extension of laterals or tapping of new service connections.
- CT-2 New water facilities must comply with state construction standards prior to operation. The following construction standards may not be all-inclusive: AWWA C-651 disinfection of water mains; AWWA C-652 disinfection of water storage facilities; AWWA C-653 disinfection of water treatment plants; AWWA C-654 disinfection of wells; and AWWA C-600 pressure testing of water mains. State rules may contain specific water facility design standards or make reference to applicable industry standards including best engineering principals and practices, codified standards as referenced in CT Guidelines for the Design and Operation of Public Water System Treatment, Works, and Sources, AWWA standards, Recommended Standards for Water Works (better known as Ten States Standards), and National Sanitation Foundation listings.
- CT-3 See CT Guidelines for the Design and Operation of Public Water System Treatment, Works, and Sources regarding separating distances. In order to receive preliminary

approval, the applicant must submit an application form, a location map, and a site plan. The applicant must identify potential contamination sources near the well.

CT-4 CT requires a 72 hour pump test.

MA-1 Modifications of drinking water facilities are conducted in accordance with Legislative Authority as stated in MGL, Chapter 111, Section 160H and MA Regulatory Authority as given in 310 CMR 22.04 of the Drinking Water Regulations. Upon filing the permit, BRP WS 25, followed by a possible MEPA review (301 CMR 11.00), an initial engineering study documented in an engineer's report is submitted prior to submittal of piloting and design documents. After approval of the engineer's report, a pilot study or in-plant demonstration study is conducted. The study is conducted in accordance with DWS Policy 90-04. Before preparing design plans and specifications, a final report, including the engineer's design recommendations, is submitted to DEP for review and written approval.

MA-2 Refer to MA DEP Guidelines and Policies for Public Water Systems, Volumes 1 and 2, as amended.

ME-1 Plans and specifications submitted for review are date stamped and logged into a project tracking/status database. The plan review manager performs an initial review and, based on the project complexity, assigns the project to either a staff person or to a technical review team. Simple projects, such as pipe and storage tank installation, are assigned to a staff person who has sole responsibility for the review and approval of the project with minor oversight. Complicated projects, such as pump station and/or treatment facilities, are assigned to a technical review team. A staff person coordinates the team's review and comments and handles all correspondence with the PWS and their engineer. A staff person conducts all field inspections of the project construction and post-construction/startup, and updates and maintains the project tracking/status database.

Projects that do not receive DWSRF financial assistance usually receive two or three inspections at 50, 75 and 100% of project completion, while DWSRF funded projects receive initial and monthly or more frequent inspections.

The plan review manager provides overall oversight of the project review process, including the development of all policies, procedures and rules. The manager also provides training to all project review staff persons, oversight of all project review correspondence and participates in all project review teams.

If, after the project review engineer completes the initial review of plans and specifications, deficiencies or non-compliances are found, the DWP sends a comment letter to the water facility owner and consulting engineer describing the deficiencies. The review engineer may request additional information or may require the plans and specifications to be altered and resubmitted, setting a timeframe for the submission of changes. After a PWS corrects and documents that it has corrected the deficiencies, the DWP issues a letter of approval, authorizing construction. New water facilities must comply with state construction standards prior to operation. (See notes CT-2 and MA-1 at the end of Sec. B.)

RI-1 In Rhode Island projects that do not receive DWSRF financial assistance usually receive one inspection at project completion, and may be inspected during construction as time allows. DWSRF-funded projects receive initial and monthly or more frequent

inspections. The plan review manager provides overall oversight of the project review process, including the development of related policies, procedures and rules. The manager also provides training to project review staff persons, oversight of all project review correspondence and participates in all project review teams.

- VT-1 Plans are submitted to the Water Supply Division, date stamped, checked for completeness, routed to appropriate Regional Team, and reviewed to ensure the proposed construction meets the standards in the Water Supply Rule. Plans must be stamped and signed by a professional engineer licensed in the State of Vermont. The Regional Team provides comments and may request changes, clarification or additional information. The Regional Team approves the project and issues a permit to construct with specific conditions.
- VT-2 In Vermont, before a new source is developed, an applicant must submit an application specifying the details of the proposed project. The source application must identify the location, source site, and potential sources of contamination. The Regional Team reviews the preliminary information and conducts a field visit to inspect the site. Once the site is approved, the applicant submits plans for source construction and well drilling, and an application for a 72-hour pump test which specifies the steps that will be taken. The applicant must also give public notice by notifying adjacent land owners about the project. The Water Supply Division approves the proposal and issues a source permit to conduct the pump test. After conducting the pump test, the applicant submits a pump test report, water quality data, defined source protection area, and source protection plan. Once the project is approved, the Regional Team issues a permit to construct and connect the source. The project is determined complete once the Regional Team receives record drawings.

C. Data and information management.

1. Purpose

The goal of the State Primacy Agency is to provide accurate, complete, and timely information to the regulated community, state and federal agencies, and the public. The ultimate goal is to use these data to protect the public health and make sound environmental decisions. The State Primacy Agency uses a database system that enables the program to collect, generate, and report data efficiently. In addition, the Agency uses a computerized application, e.g., G.I.S.) that handles the spatial data.

2. Data Constituents

Complete documentation can be found at the State Agencies' offices. Some of the major data elements that their databases track are:

- inventory information.
- monitoring schedules.
- treatment.
- water quality testing.
- violations/enforcement/compliance.
- inspections/sanitary surveys.

3. Analytical Data Review

All data from the water systems are received and reviewed by assigned staff persons. Information is checked for accuracy and entered into the database by the staff. If data are questionable, they are verified either in person during on-site inspections or by notification by letter, phone call, photocopy transmittal or electronic mail.

Assigned staff persons review the monitoring results in conjunction with standards, historical data, and relevant experience. Holding times must be within the required time frames specified by the appropriate method.

In case of monitoring results showing anomalies, staff must determine the causes for such results (e.g., lab contamination) by reviewing laboratory QA procedures and sampling. If the monitoring results are incomplete or not acceptable (or if an uncertified or decertified laboratory is used), staff asks the PWS to resubmit the results or to retest. All required contaminants must be monitored unless waived by the state. (See Maine state-specific material in note ME-2 at the end of Sec. C.)

4. Filing System

Once information (e.g., monitoring reports, correspondence, test results, source protection information, etc.) is received, date stamped and reviewed according to the specific program, paper copies are filed in the water system file. The records are maintained according to CFR 142.14. (A copy of CFR 142.14 follows the text of Worksheets 8b & 9a.) Prior to destruction of paper copies, electronic or microfilm copies are made. One copy is kept on site; the other, off site.

5. Data Use

Relevant, accurate and current data are the basis for making sound environmental decisions such as:

- system compliance.
- reporting requirements.
- follow-up assistance.
- monitoring and inspection scheduling.
- management decisions.
- compliance assistance.
- enforcement actions.
- return to compliance determinations.
- DWSRF prioritization.
- reporting.
- public notification.

6. Software Development

Additional applications are presently developed by staff.

Notes for Section C.

ME-2 . All data received for water systems through the electronic data transfer from the state primacy lab are reviewed by assigned staff. Each transfer of information is checked for accuracy (i.e., PWSID number, name, method, holding times, and results) by accessing the lab's database directly and comparing to the Drinking Water Program's database at a minimum of 10%. The reports are printed and stored by the assigned staff for validation.

77

D. **Sanitary surveys.**

1. Goal

The objective of a Sanitary Survey is to inspect and evaluate water systems for sanitary risks and compliance with state regulations and the Safe Drinking Water Act and its amendments.

2. Frequency

Currently, all sanitary surveys are performed on a routine 3 - 5 year cycle. More frequent sanitary surveys may be triggered by consumer complaints or regulatory violations.

3. Preparation for a Sanitary Survey

In compliance with the sanitary survey selection process, water suppliers are notified by inspection staff, either in writing or verbally, to schedule a survey and assure water supplier staff availability and cooperation. Once a survey is scheduled, the sanitary survey staff thoroughly review all available local/state records, including applicable operation and maintenance manuals, water supply management plans, source water protection plans, etc. Pertinent inventory data are also obtained from state computer networks which enable an update of respective water supply information during the survey inspection process. Any violations on record within a State's data system of Safe Drinking Water Act regulations are reviewed.

4. Content of a Sanitary Survey

Standard forms are used to assure uniformity and completeness of sanitary surveys. The sanitary survey inspection includes:

- administration, management and financing.
- the source(s) and source protection.
- treatment facilities.
- chemical dosages.
- calibration.
- record keeping.
- distribution and storage facilities.
- available water.
- auxiliary power capability.
- laboratory results.
- unaccounted-for water.
- distribution flushing plans.
- stored water movement.
- distribution network valve exercising.
- site sampling plans.
- Cadd schematic drawings of source water zones of protection (where applicable).
- Cadd flow schematics (where applicable).
- cross connection programs.
- special priority programmatic issues which may come up from time to time.

(78)

Should a critical deficiency (imminent health threat) be observed, there are provisions for written notification to be left with the owner/purveyor at the time of the survey, mandating that the imminent health threat be corrected within the required period of time.

5. Response Tracking

Once all the above are reviewed, a sanitary survey report is written, reviewed by supervisory staff and mailed to the owner of the water supplier. Inspection dates of each sanitary survey are tracked by computer. The expected response date is also tracked by computer. A satisfactory response to an inspection report is (1) correction of all noted deficiencies, (2) a schedule for correction of these deficiencies or (3) an explanation, satisfactory to the water regulatory program, explaining why the deficiency should not be corrected. If a satisfactory response is received, then a follow-up inspection may be scheduled to verify that the necessary corrective actions have been completed. (The practices of the Massachusetts and Vermont programs differ. See the Massachusetts- and Vermont-specific information in notes MA-3 and VT-3, respectively, below.)

If a timely response is not received, a supervisory report is generated and a reminder letter is sent to the water system, which grants an additional amount of time for a response. If a response from the water system is still not forthcoming, the water supplier is asked to participate in a teleconference or meeting with inspection and supervisory staff to discuss their intentions, or is sent a reminder letter requiring its response to the survey report in a timely manner. If the water system response is still unsatisfactory at this point, then formal enforcement procedures are initiated. (See the following section.)

Notes for Sec. D.

MA-3 After a survey is conducted in Massachusetts, the inspector writes a sanitary survey report that must be approved by his/her supervisor. The report is then sent to the water system. If a violation of a regulation, an imminent health threat is observed or a capacity deficiency that could result in a significant risk to public health is observed, the report includes an enforcement letter or notifies the water system that a separate enforcement document will be sent to specify the necessary corrective actions and schedule for completion. Data from the survey are entered into the computerized database and all compliance milestones are listed and tracked. All enforcement procedures are pursued to full compliance.

VT-3 In Vermont, after the survey is conducted, the Regional Team writes a sanitary survey report and sends a copy of the report to the water system. If an imminent health threat is observed, the Regional Team or Compliance and Certification Section, will instruct the water system to take the necessary action to address the problem. The Regional Team may also issue the water system a permit to operate based on the findings during the survey. Permits to operate typically expire within five years or less, depending upon system deficiencies identified during the survey. Data from the survey are entered into the computer inventory and milestones listed in the permit to operate are tracked by computer. Water systems are sent reminder letters and overdue notices for milestones. If water systems neglect to complete the milestones, then enforcement procedures may be initiated.

E. **Enforcement strategy.**

1. Purpose and goals

a. *Purpose*

The federal Safe Drinking Water Act is designed to ensure that public water systems meet minimum water quality standards and produce safe and palatable drinking water. All New England States have primary responsibility (primacy) for the administration and enforcement of the Act. The requirements of the Act and its regulations (National Drinking Water Regulations, 40 C.F.R. §§ 141-143) have been incorporated into the States' regulations. It is the purpose of this enforcement policy to set forth the steps that the States may follow in order to accomplish the goal of effective, timely and consistent enforcement of the requirements of the SDWA and the States' regulations. A State will initiate formal enforcement actions against public water systems violating the Safe Drinking Water Act and the State's regulations based on an established enforcement program.

b. *Goals*

The primary goals of each State's enforcement program are:

- (1) to protect the public health and promote the public welfare by regulating the quality and quantity of water delivered by public water systems;
- (2) to retain primacy under the federal Safe Drinking Water Act;
- (3) to provide effective guidance, encourage a consistent approach, foster expedient action, and identify program priorities for enforcement initiatives; and
- (4) to apply reasonable yet stringent enforcement that promotes violation deterrence through respect for and compliance with the law.

2. Priorities for enforcement actions

Prioritization of enforcement actions is ongoing and routinely discussed.

a. *Enforcement actions for emergency situations involving a public health hazard or health risk.*

Each State initiates actions against those systems that involve an imminent public health hazard or public health risk. Risk involves the immediacy of the adverse health effect caused by the violation and the nature of that effect. For example, the consumption of drinking water containing disease-causing microorganisms or high nitrates can cause an immediate, or acute, adverse health effect. In contrast, the consumption of drinking water containing chemicals exceeding MCL standards normally causes adverse health effects on a chronic or lifetime exposure basis. Decisions regarding the timing and nature of enforcement actions, therefore, must include consideration of the nature and degree of risk from, and not merely the existence of, violations of State regulations.

(FO)

The population at risk is also considered in the prioritization of enforcement action. Consideration of a population at risk will allow a State to maximize public health protection by placing higher priority for enforcement actions on larger public and risk-sensitive small populations, (e.g., nursing homes, day care centers, and schools). In addition, priority may be given to smaller, less risk-sensitive systems on a case by case basis, depending on the nature and extent of the violations.

The criteria (not ranked) that may be used in determining whether there is an imminent public health hazard or public health risk are identified below. The application and weighting of the criteria are at the discretion of each State.

- (1) Boil water advisory.
- (2) Disease outbreak - epidemiological study
- (3) Consumer complaints regarding situations of compromised public health or public safety.
- (4) Low water pressures in distribution system.
- (5) Septic system within strong evidence of hydraulic connection.
- (6) Unfiltered or non-chlorinated surface water.
- (7) Other violations of State regulations and design and construction standards.
- (8) Operator error.
- (9) Contamination.
- (10) MCL violations.
- (11) Water outage or shortage.
- (12) Unprotected high-hazard cross-contamination equipment.
- (13) A system that lacks capacity.

b. *Targeted enforcement approach*

The State may take an approach to conduct enforcement on targeted or focused areas. The focus areas below, not necessarily ranked, may be handled as ongoing enforcement actions concurrent with other targeted areas.

- (1) Lack of a certified operator.
- (2) Unapproved source.
- (3) Lack of a determination of ground water under the direct influence.
- (4) Inadequate/absent water treatment facilities (corrosion control, disinfection).
- (5) Inadequate distribution/storage (source construction, cross connections, pressure)
- (6) Lack of a source protection plan or bacteriological sampling plan.
- (7) Lack of system capacity.
- (8) Failure to monitor, issue public notices, send monthly reports, perform other reporting requirements, or perform work without a construction permit.
- (9) EPA Significant Non-Compliers (SNCs).
- (10) Failure to issue a consumer confidence report.
- (11) A system that lacks capacity.

c. *EPA priorities for enforcement*

Each State meets quarterly with EPA to discuss the current Significant Non-Compliant systems identified in EPA's computer inventory and other priorities for enforcement. A State, as appropriate, may modify the program priorities to incorporate EPA's priorities.

3. Identifying violations

In addition to systems identified on the quarterly EPA SNC list, violations are discovered through other avenues including the States' computer compliance tracking systems and technical staff findings. For example, violations may be discovered by:

- a. Internal review and tracking of public water system monitoring, reporting, public notification, and MCL violations;
- b. Sanitary surveys and other on-site inspections;
- c. Citizen complaints and follow-up investigations;
- d. Epidemiological studies disclosing sickness or disease originating from a public water system;
- e. Internal tracking of certified operator status; and
- f. Review of water system reports.

After discovery of a violation, a State will determine whether an enforcement action will be initiated.

4. Initiating enforcement actions

The first step in the enforcement process may be an informal notice of the violation. The next action may be to issue a bi-lateral agreement which may assume the authority of a court order. A penalty for the economic benefit plus a penalty for the actual violations may be included in the agreement.

If a State determines that a water system is unlikely to uphold an agreement, the designated enforcement action may be issuance of an administrative order (AO). If a State determines that defending an AO will require greater resources than are available, it may refer the case to its Attorney General's office and/or EPA for further action.

5. Compliance and enforcement tracking

Each State tracks compliance with the regulations. All enforcement actions are reported to the EPA.

F. Training, education and outreach.

1. Operator training

Community and Non-Community-Non-Transient water systems are required to have a certified water operator to operate such systems. (The requirements for Massachusetts differ. See note MA-4 at the end of this section.) In addition, each water system is required to have a specific type and grade of operator(s), dependent upon the system's size, the treatment methods used and other characteristics.

There are a number of purposes for operator training. First, some training is designed to provide individuals with enough knowledge to pass the certification exam for the level of certified operator required by a certain water system. Second, training is required for existing certified operators so that they can obtain continuing education hours to maintain their certification. In addition, all training has the ultimate goal of improving each water operator's ability to better manage his/her water system. This in turn should improve service to water customers and can also result in the need for fewer enforcement actions by the state program.

The state provides (through its own staff and/or by contracting the services of others) training opportunities to owners and operators of water systems. Courses and seminars are held all year at locations throughout each state. A sincere effort is made to provide up-to-date educational programs for all types of water operators. Operators are notified of training offerings by mailings, web site notices and newsletter entries.

Each state also approves training provided by entities other than the state and its contractors. Some organizations, such as AWWA, NEWWA and others, are pre-approved. Other courses must be relevant to public water system operation, design, maintenance or management. These include college credit courses, self-study programs and others. These training opportunities must be submitted to the program for approval.

2. Education and outreach.

Each state outreach program is designed to assist water operators and owners with the operation of their water systems and also to provide information about drinking water to the citizens of the state. Listed below are some of the states' outreach activities:

- Providing fact sheets and brochures about drinking water topics.
- Posting drinking water information on the programs' web sites.
- Publishing program newsletters.
- Presenting of workshops on drinking water issues.
- Providing staff for talks to school children, trade groups, local government and other organizations.
- Organizing fairs and educational programs for elementary school students during National Drinking Water Week.
- Providing funds from the states' Revolving Loan Fund to water systems.
- Presenting exhibits at trade shows, fairs and annual events.

- Providing information to water systems to assist them in the production of their Consumer Confidence Reports.
- Recognizing public water systems that make a special effort in promoting drinking water issues. (See note MA-5 at the end of this section.)
- Providing technical assistance to water systems.
- Conducting sanitary surveys of water systems.
- Answering questions from citizens with regards to drinking water concerns.
- Sending reminder and pre-violation letters to water systems.
- Networking with public and private groups about drinking water issues.
- Facilitating mentoring groups for water system operators.
- Providing technical assistance directories.

Notes for Sec. F.

MA-4 Massachusetts also requires TNC water systems to have certified operators.

MA-5 Drinking Water Awards: During National Drinking Water Week, the MA DEP, in conjunction with the Massachusetts Drinking Water Education Partnership (MADWEP) (which includes NeRWA and MWWA), recognizes public water systems that go beyond compliance with the state drinking water regulations in promoting quality drinking water.

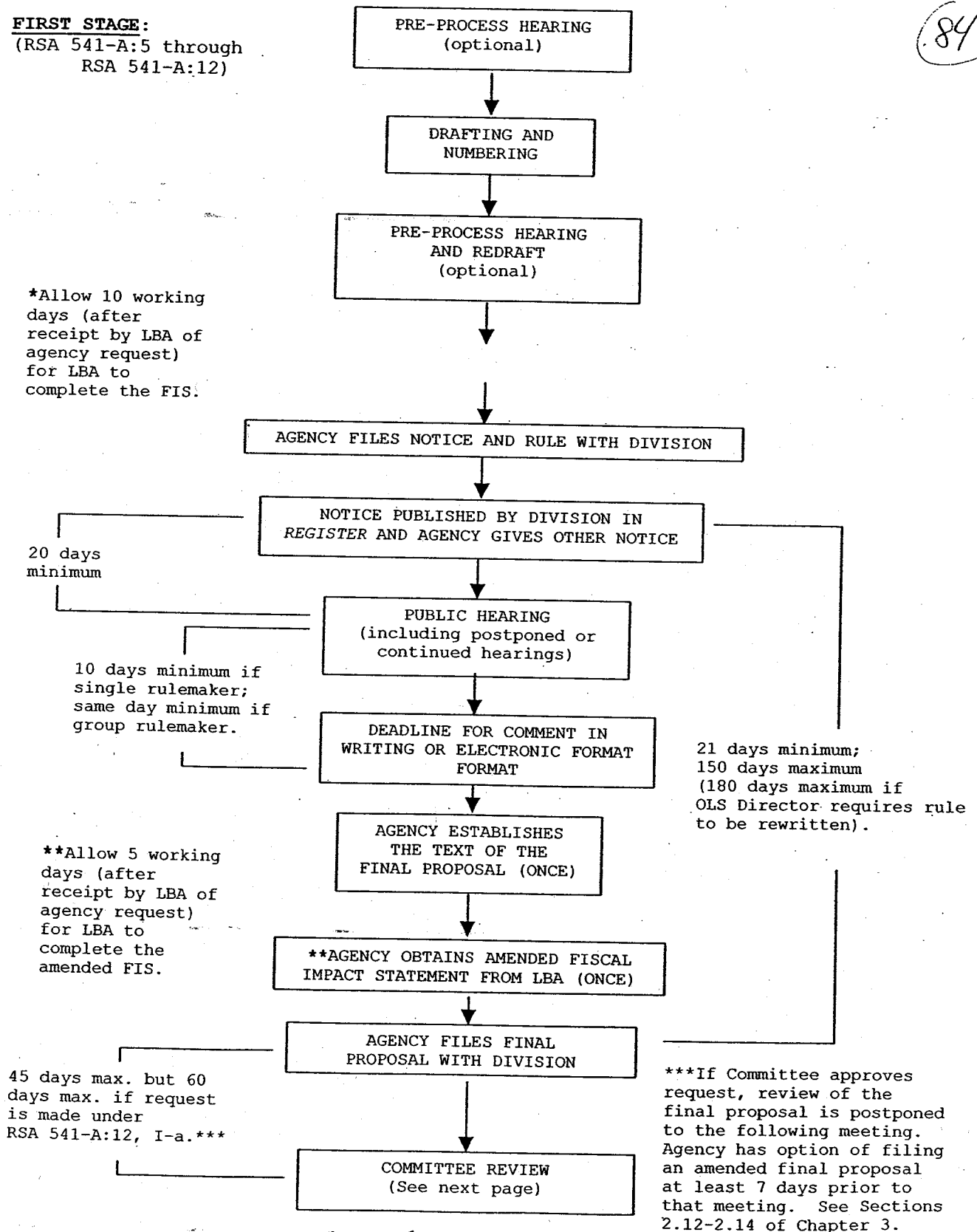
Source Protection Awards are also distributed during drinking water week.

The End of Worksheets 8b & 9a.

SUMMARY OF PROCEDURE FOR ADOPTION OF REGULAR RULES
(See RSA 541-A:5 through RSA 541-A:14)

FIRST STAGE:

(RSA 541-A:5 through
RSA 541-A:12)



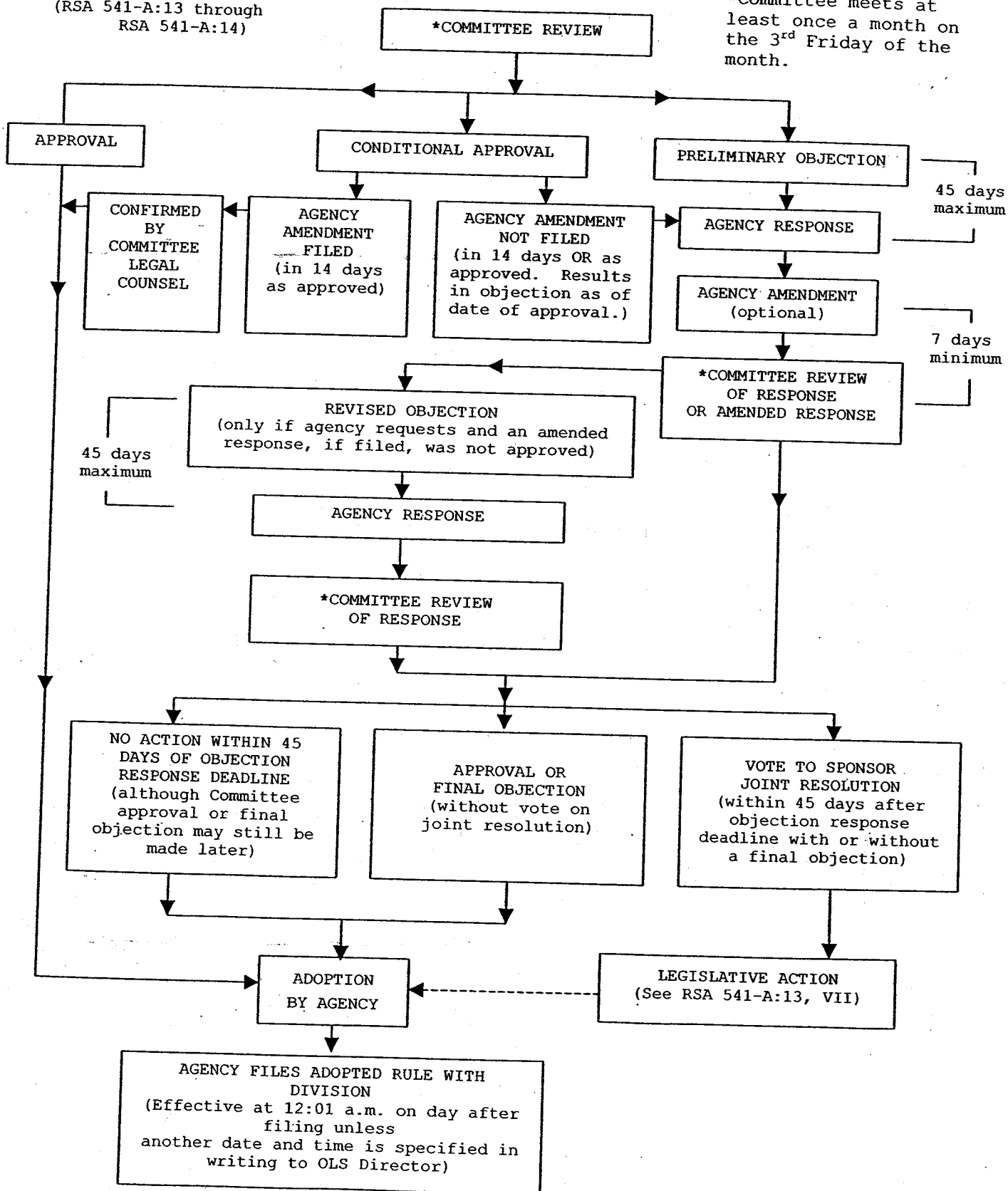
NEW HAMPSHIRE DRAFTING AND PROCEDURE MANUAL

85

SECOND STAGE:

(RSA 541-A:13 through
RSA 541-A:14)

*Committee meets at
least once a month on
the 3rd Friday of the
month.



Division of Environmental Health/Water Supplies Section

U.S. Code of Federal Regulations

40 C.F.R. § 142.14

Revised by States.

(a) Each State, which has primary enforcement responsibility shall maintain records of tests, measurements, analyses, decisions, and determinations performed on each public water system to determine compliance with applicable provisions of State primary drinking water regulations.

RECORD	SECTION	MINIMUM RETENTION REQUIRED	COMMENT
Microbiological analyses	§ 142.14	1 year	Actual laboratory reports may be kept or data may be transferred to tabular summaries including analytical method used, number of samples analyzed each month, analytical results in comparison with the limits specified in § 141.63, 141.71 and 141.72
Microbiological analyses of repeat or special samples	§ 142.14	1 year	Actual laboratory reports or in an appropriate summary form
Turbidity measurements	§ 142.14	1 year	The information retained must be set forth in a form, which makes possible comparison with the limits specified in § 141.71 and 141.73 of this chapter and include data and place of sampling, date and results of analyses
Disinfectant residual measurements and other parameters necessary to document disinfection effectiveness.	§ 142.14	1 year	In accordance with § 141.72 and 141.74 and the reporting requirements of § 141.75
Records of decisions made on a system-by-system and case-by-case basis under provisions of part 141, subpart H, shall be made in writing and kept at the State.	§ 142.14		
Decisions - Records of Decisions made under the following provisions:		40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow a public water system using conventional filtration treatment or direct filtration to substitute a turbidity limit greater than 0.5 NTU.	141.73 (a)(1)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow a public water system using slow sand filtration to substitute a turbidity limit greater than 1 NTU.	141.73 (b)(1)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow an unfiltered public water system to use continuous turbidity monitoring.	141.74 (b)(2)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow an unfiltered public water system to sample residual disinfectant concentration at alternate locations if it also has ground water source(s).	141.74 (b)(6)(1)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow a public water system using filtration treatment to use continuous turbidity monitoring; or a public water system using slow sand filtration or filtration treatment other than conventional treatment, direct filtration or diatomaceous earth filtration to reduce turbidity sampling to once per day; or for systems serving 500 people or fewer to reduce turbidity sampling to once per day.	141.74 (c)(1)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow a filtered public water system to sample disinfectant residual concentration at alternate locations if it also has ground water source(s).	141.74 (c)(3)(i)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system

86

RECORD

RECORD	SECTION	MINIMUM RETENTION REQUIRED	COMMENT
Decisions to allow reduced reporting by an unfiltered public water system.	141.75 (a) (2) (ix)	40 years	system Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Decisions to allow reduced reporting by a filtered public water system.	141.75 (b) (2) (iv)	40 years	Or until one year after the decision is reversed or revised and a copy of the decision must be provided to the system
Records of decisions made under the following provisions.		1 year	Shall be kept for one year after the decision is made
Decisions that a violation of monthly CT compliance requirements was caused by circumstance that were unusual and unpredictable.	141.71 (b) (1) (i)	1 year	Shall be kept for one year after the decision is made
Decisions that a violation of the disinfection effectiveness criteria was not caused by a deficiency in treatment of the source water.	141.71 (b) (1) (iv)	1 year	Shall be kept for one year after the decision is made
Decisions that a violation of the total coliform MCL was not caused by a deficiency in treatment of the source water.	141.71 (b) (5)	1 year	Shall be kept for one year after the decision is made
Decisions that total coliform monitoring otherwise required because the turbidity of the source water exceeds 1 NTU is not feasible, except that if such decision allows a system to avoid monitoring without receiving State approval in each instance.	141.74 (b) (1)	1 year	Records of the decision shall be kept until one year after the decision is rescinded or revised
Decisions made under the following provisions shall be kept for the specified period or 40 years, whichever is less.			
Decisions that an event in which the source water turbidity which exceeded 5 NTU for an unfiltered public water system was unusual and unpredictable shall be kept for 10 years.	141.71 (a) (2) (i)	10 years	
Decisions by the State that failure to meet the disinfectant residual concentration requirements of § 141.72 (a) (3) (i) was caused by circumstances that were unusual and unpredictable, shall be kept unless filtration is installed. A copy of the decision must be provided to the system.	141.71 (b) (1) (iii)	Shall be kept unless filtration is installed	
Decisions that a public water system's watershed control program meets the requirements of this section shall be kept until the next decision is available and filed.	141.71 (b) (2)	Shall be kept until the next decision is available and filed	
Decisions that an individual is a qualified operator for a public water system using a surface water source or a ground water source under the direct influence of surface water shall be maintained until the qualification is withdrawn. The State may keep this information in the form of a list, which is updated periodically. If such qualified operators are classified by category, the decision shall include that classification.	141.70 (c)	Shall be maintained until the qualification is withdrawn	
Decisions that a party other than the State is approved by the State to conduct on-site inspections shall be maintained until withdrawn. The State may keep this information in the form of a list, which is updated periodically.	141.71 (b) (3)	Shall be maintained until withdrawn	

SECTION	MINIMUM RETENTION REQUIRED	COMMENT
141.71 (b) (4)	Shall be kept until filtration treatment is installed	Decisions that an unfiltered public water system has been identified as the source of a waterborne disease outbreak, and, if applicable, that it has been modified sufficiently to prevent another such occurrence shall be kept until filtration treatment is installed. A copy of the decision must be provided to the system.
141.72	Shall be kept until filtration treatment is installed	Decisions that certain interim disinfection requirements are necessary for an unfiltered public water system for which the State has determined that filtration is necessary, and a list of those requirements, shall be kept until filtration treatment is installed. A copy of the requirements must be provided to the system.
141.72 (a) (2) (ii)	Until rescinded	Decisions that automatic shut-off of delivery of water to the distribution system of an unfiltered public water system would cause an unreasonable risk to health or interfere with fire protection shall be kept until rescinded.
141.72 (a) (4) (ii)	Shall be kept until decision is reversed or revised	Decisions by the State, based on site-specific considerations, that an unfiltered system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified by § 141.74 (a) (3) and that the system is providing adequate disinfection in the distribution system, so that the disinfection requirements contained in § 141.72 (a) (4) (i) do not apply, and the basis for the decision, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.
141.72 (b) (3) (ii)	Shall be kept until the decision is reversed or revised	Decisions by the State, based on site-specific conditions, that a filtered system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified by § 141.74 (a) (3) and that the system is providing adequate disinfection in the distribution system, so that the disinfection requirements contained in § 141.72 (b) (3) (i) do not apply, and the basis for the decision, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.
141.73 (d)	Shall be kept until the decision is reversed or revised	Decisions that a public water system, having demonstrated to the State that an alternative filtration technology, in combination with disinfection treatment, consistently achieves 99.9 percent removal and/or inactivation of <i>Giardia lamblia</i> cysts and 99.99 percent removal and/or inactivation of viruses, may use such alternative filtration technology, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.
141.74 (b)	Shall be kept until the decision is reversed or revised	Decisions that a system using either preformed chloramines or chloramines formed by the addition of ammonia prior to the addition of chlorine has demonstrated that 99.99 percent removal and/or inactivation of viruses has been achieved at particular CT values, and a list of those values, shall be kept until the decision is reversed or revised. A copy of the list of required values must be provided to the system.
141.74 (b) (3) (v)	Shall be kept until the decision is reversed or revised	Decisions that a system using a disinfectant other than chlorine may use CT 99.9 values other than those in tables 2.1 or 3.1 and/or other operational parameters to determine if the minimum total inactivation rates required by § 141.72 (a) (1) are being met, and what those values or parameters are, shall be kept until the decision is reversed or revised. A copy of the list of required values or parameters must be provided to the system.

RECORD

	SECTION	MINIMUM RETENTION REQUIRED	COMMENT
Decisions that a system using a ground water source is under the direct influence of surface water:	142.16 (b)		
Records of any determination that a public water system supplied by a surface water source or a ground water source under the direct influence of surface water is not required to provide filtration treatment shall be kept for 40 years or until withdrawn, whichever is earlier. A copy of the determination must be provided to the system.	(2)(i)(B)		
Records of each of the following decisions made pursuant to the total coliform provisions of part 141 shall be made in writing and retained by the State.	(iii)	40 years	40 years or until withdrawn, whichever is earlier
Records of the following decisions must be retained for 5 years:			
Decisions to waive the 24-hour time limit for collecting repeat samples after a total coliform-positive routine sample if the public water system has a logistical problem in collecting the repeat sample that is beyond the system's control, and what alternative time limit the system must meet.	141.21 (b)	5 years	
Decisions to allow a system to waive the requirement for five routine samples the month following a total coliform-positive sample.	(1)	5 years	
Decisions to invalidate a total coliform-positive sample. If the decision to invalidate a total coliform-positive sample as provided in § 141.21 (c) (1) (iii) is made, the record of the decision must contain all the items listed in that paragraph.	141.21 (b)	5 years	If the waiver is made as provided in § 141.21 (b) (5), the record of the decision must contain all the items listed in that paragraph.
Records of each of the following decisions must be retained in such a manner so that each system's current status may be determined:	(5)	5 years	Must contain all the items listed in § 141.21 (c) (1) (iii)
Decisions to reduce the total coliform monitoring frequency for a community water system serving 1,000 persons or fewer, that has no history of total coliform contamination in its current configuration and had a sanitary survey conducted within the past five years showing that the system is supplied solely by a protected groundwater source and is free of sanitary defects, to less than once per month, as provided in § 141.21 (a) (2); and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.	141.21 (c)	5 years	
Decisions to reduce the total coliform monitoring frequency for a non-community water system using only ground water and serving 1,000 persons or fewer to less than once per quarter, as provided in § 141.21 (a) (3) (i), and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.	141.21 (a)	5 years	Records required to be kept pursuant to this section must be in a form admissible as evidence in State enforcement proceedings.
Decisions to reduce the total coliform monitoring frequency for a non-community water system serving 1,000 persons or fewer, as provided in § 141.21 (a) (3) (ii). A copy of the reduced monitoring frequency must be provided to the system.	(2)		
Decisions to reduce the total coliform monitoring frequency for a non-community water system serving 1,000 persons or fewer, as provided in § 141.21 (a) (3) (ii). A copy of the reduced monitoring frequency must be provided to the system.	141.21 (a)	5 years	
Decisions to waive the 24-hour limit for taking a total coliform sample for a public water system which uses surface water, or ground water under the direct influence of surface water, and which does not practice filtration in accordance with part 141, subpart H, and which measures a source water turbidity level exceeding INTU near the first service connection as provided in § 141.21(a) (5).	(3) (i)		
	141.21 (a)	5 years	
	(3) (ii)		
	141.21 (a)	5 years	
	(5)		

RECORD

SECTION	MINIMUM RETENTION REQUIRED	COMMENT
141.21 (d) (1)	5 years	
141.21 (d) (2)	5 years	
141.21 (e) (2)	5 years	
	12 years	
	12 years	
	12 years	
	12 years	or until a more current vulnerability determination has been issued
	12 years	or until a more recent monitoring frequency decision has been issued
	12 years	or until a more current repeat monitoring determination has been issued
	12 years	

Decisions that a non-community water system is using only protected & disinfected ground water and therefore may reduce the frequency of its sanitary survey to less than once every five years, as provided in § 141.21 (d), & what that frequency is. A copy of the reduced frequency must be provided to the system.

A list of agents other than the State, if any, approved by the State to conduct sanitary surveys.

Decisions to allow a public water system to forgo fecal coliform or E. coli testing on a total coliform-positive sample if that system assumes that the total coliform-positive sample is fecal coliform-positive or E. coli-positive, as provided in § 141.21 (e) (2).

Records of analysis for other than microbiological contaminants (including total coliform, fecal coliform, and heterotrophic plate count), residual disinfectant concentration, other parameters necessary to determine disinfection effectiveness (including temperature and pH measurements), and turbidity shall be retained for not less than 12 years and shall include at least the following information: Date and place of sampling, date and results of analyses.

Each State which has primary enforcement responsibility shall maintain current inventory information for every public water system in the State and shall retain inventory records of public water systems for not less than 12 years.

Each State which has primary enforcement responsibility shall retain, for not less than 12 years, files which shall include for each such public water system in the State:

(1) Reports of sanitary surveys;

(2) Records of any State approvals;

(3) Records of any enforcement actions;

(4) A record of the most recent vulnerability determination, including the monitoring results and other data supporting the determination, the State's findings based on the supporting data and any additional bases for such determination; except that it shall be kept in perpetuity or until a more current vulnerability determination has been issued;

(5) A record of all current monitoring requirements and the most recent monitoring frequency decision pertaining to each contaminant, including the monitoring results and other data supporting the decision, the State's findings based on the supporting data and any additional bases for such decision; except that the record shall be kept in perpetuity or until a more recent monitoring frequency decision has been issued;

(6) A record of the most recent asbestos repeat monitoring determination, including the monitoring results and other data supporting the determination, the State's findings based on the supporting data and any additional bases for the determination and the repeat monitoring frequency; except that these records shall be maintain in perpetuity or until a more current repeat monitoring determination has been issued.

(7) Records of annual certifications received from systems pursuant to part 141, subpart K demonstrating the system's compliance with the treatment techniques for acrylamide and/or epichlorohydrin in § 14.111.

RECORD

SECTION	MINIMUM RETENTION REQUIRED	COMMENT
(8) Records of the currently applicable or most recent State determination, including all supporting information & an explanation of technical basis for each decision, made under the following provisions of 40 CFR, part 141, subpart I for the control of lead & copper:	12 years	
Decisions to require a water system to conduct corrosion control treatment studies;	141.82 (b)	12 years
Designations of optimal corrosion control treatment;	141.82 (d)	12 years
Designations of optimal water quality parameters;	141.82 (f)	12 years
Decisions to modify a public water system's optimal corrosion control treatment or water quality parameters;	141.82 (h)	12 years
Determinations of source water treatment;	141.83 (b)	12 years
Designations of maximum permissible lead and copper concentrations in source water.	141.83 (b) (2)	12 years
Determinations that a system does not control entire lead service lines.	141.84 (e)	12 years
Determinations establishing a shorter lead service line replacement schedule than required by § 141.84.	141.84 (f)	12 years
Records of reports and any other information submitted by PWSs under § 141.90;		12 years
Records of state activities, and the results thereof, to verify compliance with State determinations issued under § 141.82 (f), 141.82 (h), 141.83 (b) (2), and 141.83 (b) (4) and compliance with lead service line replacement schedules under § 141.84.		12 years
Records of each system's currently applicable or most recently designated monitoring requirements. If, for the records identified in § 142.14 (d) (8) (i) through 142.14 (d) (8) (viii) above, no change is made to State decision during a 12 year retention period, determination or designation has been issued.		12 years
Each State, which has primary enforcement responsibility, shall retain records pertaining to each variance and exemption granted by it for a period of no less than 5 years following the expiration of such variance or exemption.	5 years	Following the expiration of such variance or exemption
Records required to be kept under this section shall be available to the Regional Administrator upon request. The records required to be kept under this section shall be maintained and made available for public inspection by the State, or, the State at its option may require suppliers of water to make available for public inspection those records maintained in accordance with § 141.33.		

s:\section\public outreach-information\records retention fed listing.doc

U.S. Code of Federal Regulations

40 C.F.R. § 142.14 Records kept by States.

(a) Each State, which has primary enforcement responsibility shall maintain records of tests, measurements, analyses, decisions, and determinations performed on each public water system to determine compliance with applicable provisions of State primary drinking water regulations.

(1) Records of microbiological analyses shall be retained for not less than 1 year. Actual laboratory reports may be kept or data may be transferred to tabular summaries, provided that the information retained includes:

- (i) The analytical method used;
- (ii) The number of samples analyzed each month;
- (iii) The analytical results, set forth in a form, which makes possible comparison with the limits specified in §§ 141.63, 141.71, and 141.72 of this chapter.

(2) Records of microbiological analyses of repeat or special samples shall be retained for not less than one year in the form of actual laboratory reports or in an appropriate summary form.

(3) Records of turbidity measurements shall be kept for not less than one year. The information retained must be set forth in a form, which makes possible comparison with the limits specified in §§ 141.71 and 141.73 of this chapter. Until June 29, 1993, for any public water system which is providing filtration treatment and until December 30, 1991, for any public water system not providing filtration treatment and not required by the State to provide filtration treatment, records kept must be set forth in a form which makes possible comparison with the limits contained in § 141.13.

(i) Date and place of sampling.

(ii) Date and results of analyses.

(4) (i) Records of disinfectant residual measurements and other parameters necessary to document disinfection effectiveness in accordance with §§ 141.72 and 141.74 of this chapter and the reporting requirements of § 141.75 of this chapter shall be kept for not less than one year.

(ii) Records of decisions made on a system-by-system and case-by-case basis under provisions of part 141, subpart H, shall be made in writing and kept at the State.

(A) Records of decisions made under the following provisions shall be kept for 40 years (or until one year after the decision is reversed or revised) and a copy of the decision must be provided to the system:

- (1) Section 141.73 (a) (1) -Any decision to allow a public water system using conventional filtration treatment or direct filtration to substitute a turbidity limit greater than 0.5 NTU;
 - (2) Section 141.73 (b) (1) - Any decision to allow a public water system using slow sand filtration to substitute a turbidity limit greater than 1 NTU;
 - (3) Section 141.74 (b) (2) -Any decision to allow an unfiltered public water system to use continuous turbidity monitoring;
 - (4) Section 141.74 (b) 6) (i) -Any decision to allow an unfiltered public water system to sample residual disinfectant concentration at alternate locations if it also has ground water source(s);
 - (5) Section 141.74 (c) (1) -Any decision to allow a public water system using filtration treatment to use continuous turbidity monitoring; or a public water system using slow sand filtration or filtration treatment other than conventional treatment, direct filtration or diatomaceous earth filtration to reduce turbidity sampling to once per day; or for systems serving 500 people or fewer to reduce turbidity sampling to once per day;
 - (6) Section 141.74 (c) (3) (i) -Any decision to allow a filtered public water system to sample disinfectant residual concentration at alternate locations if it also has ground water source(s);
 - (7) Section 141.75 (a) (2) (ix) -Any decision to allow reduced reporting by an unfiltered public water system; and
 - (8) Section 141.75 (b) (2) (iv) -Any decision to allow reduced reporting by a filtered public water system.
- (B) Records of decisions made under the following provisions shall be kept for one year after the decision is made:
- (1) Section 141.71(b) (1) (i) -Any decision that a violation of monthly CT compliance requirements was caused by circumstance that were unusual and unpredictable.
 - (2) Section 141.71 (b) (1) (iv) -Any decision that a violation of the disinfection effectiveness criteria was not caused by a deficiency in treatment of the source water;
 - (3) Section 141.71 (b) (5) -Any decision that a violation of the total coliform MCL was not caused by a deficiency in treatment of the source water;
 - (4) Section 141.74 (b) (1) -Any decision that total coliform monitoring otherwise required because the turbidity of the source water exceeds 1 NTU is not a feasible, except that if such decision allows a system to avoid monitoring without receiving State approval in each instance, records of the decision shall be kept until one year after the decision is rescinded or revised.
- (C) Records of decisions made under the following provisions shall be kept for

94

the specified period or 40 years, whichever is less.

- (1) Section 141.71 (a) (2) (i) -Any decision that an event in which the source water turbidity which exceeded 5 NTU for an unfiltered public water system was unusual and unpredictable shall be kept for 10 years.
- (2) Section 141.71 (b) (1) (iii) -Any decision by the State that failure to meet the disinfectant residual concentration requirements of § 141.72 (a) (3) (i) was caused by circumstances that were unusual and unpredictable, shall be kept unless filtration is installed. A copy of the decision must be provided to the system.
- (3) Section 141.71 (b) (2) -Any decision that a public water system's watershed control program meets the requirements of this section shall be kept until the next decision is available and filed.
- (4) Section 141.70 (c) -Any decision that an individual is a qualified operator for a public water system using a surface water source or a ground water source under the direct influence of surface water shall be maintained until the qualification is withdrawn. The State may keep this information in the form of a list, which is updated periodically. If such qualified operators are classified by category, the decision shall include that classification.
- (5) Section 141.71 (b) (3) -Any decision that a party other than the State is approved by the State to conduct on-site inspections shall be maintained until withdrawn. The State may keep this information in the form of a list, which is updated periodically.
- (6) Section 141.71 (b) (4) -Any decision that an unfiltered public water system has been identified as the source of a waterborne disease outbreak, and, if applicable, that it has been modified sufficiently to prevent another such occurrence shall be kept until filtration treatment is installed. A copy of the decision must be provided to the system.
- (7) Section 141.72 -Any decision that certain interim disinfection requirements are necessary for an unfiltered public water system for which the State has determined that filtration is necessary, and a list of those requirements, shall be kept until filtration treatment is installed. A copy of the requirements must be provided to the system.
- (8) Section 141.72 (a) (2) (ii) -Any decision that automatic shut-off of delivery of water to the distribution system of an unfiltered public water system would cause an unreasonable risk to health or interfere with fire protection shall be kept until rescinded.
- (9) Section 141.72 (a) (4) (ii) -Any decision by the State, based on site-specific considerations, that an unfiltered system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified by § 141.74 (a) (3) and that the system is providing adequate disinfection in the distribution system, so that the disinfection requirements contained in § 141.72 (a) (4) (i) do not apply, and the basis for the decision, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.

95

(10) Section 141.72 (b) (3) (ii) -Any decision by the State, based on site-specific conditions, that a filtered system has no means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified by § 141.74 (a) (3) and that the system is providing adequate disinfection in the distribution system, so that the disinfection requirements contained in § 141.72 (b) (3) (i) do not apply, and the basis for the decision, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.

(11) Section 141.73 (d) -Any decision that a public water system, having demonstrated to the State that an alternative filtration technology, in combination with disinfection treatment, consistently achieves 99.9 percent removal and/or inactivation of *Giardia lamblia* cysts and 99.99 percent removal and/or inactivation of viruses, may use such alternative filtration technology, shall be kept until the decision is reversed or revised. A copy of the decision must be provided to the system.

(12) Section 141.74 (b), table 3.1 -Any decision that a system using either preformed chloramines or chloramines formed by the addition of ammonia prior to the addition of chlorine has demonstrated that 99.99 percent removal and/or inactivation of viruses has been achieved at particular CT values, and a list of those values, shall be kept until the decision is reversed or revised. A copy of the list of required values must be provided to the system.

(13) Section 141.74 (b) (3) (v) -Any decision that a system using a disinfectant other than chlorine may use CT 99.9 values other than those in tables 2.1 or 3.1 and/or other operational parameters to determine if the minimum total inactivation rates required by § 141.72 (a) (1) are being met, and what those values or parameters are, shall be kept until the decision is reversed or revised. A copy of the list of required values or parameters must be provided to the system.

(14) Section 142.16 (b) (2) (i) (B) -Any decision that a system using a ground water source is under the direct influence of surface water.

(iii) Records of any determination that a public water system supplied by a surface water source or a ground water source under the direct influence of surface water is not required to provide filtration treatment shall be kept for 40 years or until withdrawn, whichever is earlier. A copy of the determination must be provided to the system.

(5) Records of each of the following decisions made pursuant to the total coliform provisions of part 141 shall be made in writing and retained by the State:

(i) Records of the following decisions must be retained for 5 years.

(A) Section 141.21 (b) (1) -Any decision to waive the 24-hour time limit for collecting repeat samples after a total coliform-positive routine sample if the public water system has a logistical problem in collecting the repeat sample that is beyond the system's control, and what alternative time limit the system must meet.

(B) Section 141.21 (b) (5) -Any decision to allow a system to waive the requirement for five routine samples the month following a total coliform-positive sample. If the waiver is made as provided in § 141.21 (b) (5), the record of the decision must contain all the items listed in that paragraph.

(C) Section 141.21 (c) -Any decision to invalidate a total coliform-positive sample. If the decision to invalidate a total coliform-positive sample as provided in § 141.21 (c) (1) (iii) is made, the record of the decision must contain all the items listed in that paragraph.

(ii) Records of each of the following decisions must be retained in such a manner so that each system's current status may be determined.

(A) Section 141.21 (a) (2) -Any decision to reduce the total coliform monitoring frequency for a community water system serving 1,000 persons or fewer, that has no history of total coliform contamination in its current configuration and had a sanitary survey conducted within the past five years showing that the system is supplied solely by a protected groundwater source and is free of sanitary defects, to less than once per month, as provided in § 141.21 (a) (2); and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.

(B) Section 141.21 (a) (3) (i) -Any decision to reduce the total coliform monitoring frequency for a non-community water system using only ground water and serving 1,000 persons or fewer to less than once per quarter, as provided in § 141.21 (a) (3) (i), and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.

(C) Section 141.21 (a) (3) (ii) -Any decision to reduce the total coliform monitoring frequency for a non-community water system using only ground water and serving more than 1,000 persons during any month the system serves 1,000 persons or fewer, as provided in § 141.21(a) (3) (ii). A copy of the reduced monitoring frequency must be provided to the system.

(D) Section 141.21 (a) (5) -Any decision to waive the 24-hour limit for taking a total coliform sample for a public water system which uses surface water, or ground water under the direct influence of surface water, and which does not practice filtration in accordance with part 141, subpart H, and which measures a source water turbidity level exceeding 1NTU near the first service connection as provided in § 141.21(a) (5).

(E) Section 141.21 (d) (1) -Any decision that a non-community water system is using only protected and disinfected ground water and therefore may reduce the frequency of its sanitary survey to less than once every five years, as provided in § 141.21 (d), and what that frequency is. A copy of the reduced frequency must be provided to the system.

(F) Section 141.21 (d) (2) -A list of agents other than the State, if any, approved by the State to conduct sanitary surveys.

(G) Section 141.21 (e) (2) -Any decision to allow a public water system to forgo fecal coliform or E. coli testing on a total coliform-positive sample if that system assumes that the total coliform-positive sample is fecal coliform-

positive or E. coli-positive, as provided in § 141.21 (e) (2).

(6) Records of analysis for other than microbiological contaminants (including total coliform, fecal coliform, and heterotrophic plate count), residual disinfectant concentration, other parameters necessary to determine disinfection effectiveness (including temperature and pH measurements), and turbidity shall be retained for not less than 12 years and shall include at least the following information:

(i) Date and place of sampling.

(ii) Date and results of analyses.

(b) Records required to be kept pursuant to paragraph (a) of this section must be in a form admissible as evidence in State enforcement proceedings.

(c) Each State which has primary enforcement responsibility shall maintain current inventory information for every public water system in the State and shall retain inventory records of public water systems for not less than 12 years.

(d) Each State which has primary enforcement responsibility shall retain, for not less than 12 years, files which shall include for each such public water system in the State:

(1) Reports of sanitary surveys;

(2) Records of any State approvals;

(3) Records of any enforcement actions.

(4) A record of the most recent vulnerability determination, including the monitoring results and other data supporting the determination, the State's findings based on the supporting data and any additional bases for such determination; except that it shall be kept in perpetuity or until a more current vulnerability determination has been issued

(5) A record of all current monitoring requirements and the most recent monitoring frequency decision pertaining to each contaminant, including the monitoring results and other data supporting the decision, the State's findings based on the supporting data and any additional bases for such decision; except that the record shall be kept in perpetuity or until a more recent monitoring frequency decision has been issued.

(6) A record of the most recent asbestos repeat monitoring determination, including the monitoring results and other data supporting the determination, the State's findings based on the supporting data and any additional bases for the determination and the repeat monitoring frequency; except that these records shall be maintain in perpetuity or until a more current repeat monitoring determination has been issued.

(7) Records of annual certifications received from systems pursuant to part 141, subpart K demonstrating the system's compliance with the treatment

techniques for acrylamide and/or epichlorohydrin in § 14.111.

(8) Records of the currently applicable or most recent State determination, including all supporting information and an explanation of the technical basis for each decision, made under the following provisions of 40 CFR, part 141, subpart I for the control of lead and copper:

(i) Section 141.82 (b) -decisions to require a water system to conduct corrosion control treatment studies;

(ii) Section 141.82 (d) -designations of optimal corrosion control treatment;

(iii) Section 141.82 (f) -designations of optimal water quality parameters;

(iv) Section 141.82 (h) -decisions to modify a public water system's optimal corrosion control treatment or water quality parameters;

(v) Section 141.83 (b) (2) -determinations of source water treatment; and

(vi) Section 141.83 (b) (4) -designations of maximum permissible lead and copper concentrations in source water.

(vii) Section 141.84 (e) -determinations that a system does not control entire lead service lines.

(viii) Section 141.84 (f) -determinations establishing a shorter lead service line replacement schedule than required by § 141.84.

(9) Records of reports and any other information submitted by PWSs under § 141.90;

(10) Records of state activities, and the results thereof, to verify compliance with State determinations issued under §§ 141.82 (f), 141.82 (h), 141.83 (b) (2), and 141.83 (b) (4) and compliance with lead service line replacement schedules under § 141.84.

(11) Records of each system's currently applicable or most recently designated monitoring requirements. If, for the records identified in §§ 142.14 (d) (8) (i) through 142.14 (d) (8) (viii) above, no change is made to State decision during a 12 year retention period, determination or designation has been issued.

(e) Each State, which has primary enforcement responsibility, shall retain records pertaining to each variance and exemption granted by it for a period of no less than 5 years following the expiration of such variance or exemption.

(f) Records required to be kept under this section shall be available to the Regional Administrator upon request. The records required to be kept under this section shall be maintained and made available for public inspection by the State, or, the State at its option may require suppliers of water to make available for public inspection those records maintained in accordance with § 141.33.

[41 FR 2918, Jan. 20, 1976, as amended at 54 FR 27537, June 29, 1989; 55 FR 25065, June 19, 1990; 56 FR 3595, Jan. 30, 1991; 56 FR 26562, June 7, 1991]

s:\sectional\public outreach information\records retention-code of fed regs.doc

99