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PART Env-Dw 504  PUBLIC WATER SYSTEM MAINTENANCE REQUIREMENTS
CHAPTER Env-Dw 500  OPERATION AND MAINTENANCE

Statutory Authority: RSA 485:3-a; RSA 485:41, VIII

PART Env-Dw 503  PUBLIC WATER SYSTEM GENERAL OPERATIONAL REQUIREMENTS

REVISION NOTE:

Document #10465, effective 12-2-13, readopted with amendments and renumbered former Part Env-Ws 360, entitled General Operational Requirements of a Public Water System, under a new subtitle as Part Env-Dw 503 entitled Public Water System General Operational Requirements. The redesignation from subtitle Env-Ws to subtitle Env-Dw was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

Document #10465 replaces all prior filings for rules formerly in Env-Ws 360. The prior filings for rules in former Env-Ws 367 include the following documents:

- #4850, eff. 6-25-90
- #5422, eff. 6-22-92
- #5873, eff. 7-26-94
- #6521, eff. 6-4-97
- #7673, eff. 4-6-02
- #8360, INTERIM, eff. 6-4-05
- #8475, eff. 11-30-05

Env-Dw 503.01  Owner Liability. The owner of a public water system may delegate any responsibility imposed by this part to another person, subject to the limitations specified herein. Such delegation shall not relieve the owner from liability for non-compliance with these requirements.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.02  Notification of Impairment.

(a) The owner of a community or non-community, non-transient water system shall notify the department within 24 hours after discovery of any of the following:

(1) Actual or suspected tampering, sabotage, security breach, or any suspicious incident at the water system;

(2) Damage to or depletion of the source of the supply or water system facilities which impairs the quality or sufficiency of the supply; or

(3) Interruption of service of a pressure zone or the entire water system due to an extended power outage, line break, or other cause.

(b) The owner shall provide the notice to the department required by (a), above, by telephone, fax, e-mail, or other available means of confirmable, rapid communication.

(c) A community water system shall implement the appropriate actions as specified in the water system’s emergency plan required by Env-Dw 503.21.

(d) Subject to (g), below, if the impairment is anticipated to last more than 48 hours, the system owner shall notify affected customers within 48 hours of the impairment of:

(1) What the impairment is;

(2) The corrective actions taken or planned; and

(3) The expected timeframe for resolution.
(e) The system owner shall provide the notice to customers required by (d), above, by:

   (1) Using reverse-911 or similar automated mechanism for contacting customers, if available; or
   (2) In writing, if the water system does not have reverse 911 or other automated mechanism for contacting customers.

(f) The system owner shall provide a copy of the recorded or written notice to the department.

(g) If the system owner is a political subdivision and its local legislative body has not voted or does not vote to approve funding for the notification required by (d), above, and the notification is not fully funded by the state, the system owner shall not be required to provide the notice.

Source.  (See Revision Note at part heading for Env-Dw 503)  
#10465, eff 12-2-13

Env-Dw 503.03 Designation of Emergency Operator.

(a) The owner of a community water system shall designate another person to take charge of the system in the event that an emergency occurs during the owner’s absence.

(b) For systems serving 1,000 or more people, the designee shall be a certified operator.

Source.  (See Revision Note at part heading for Env-Dw 503)  
#10465, eff 12-2-13

Env-Dw 503.04 Notice of Change of Personnel.

(a) Within 5 working days of the change, the owner of a public water system shall notify the department whenever a change occurs in any of the following:

   (1) The owner’s contact person, as listed in the department’s database;
   (2) Owner’s representative;
   (3) Primary certified operator;
   (4) Sampling agent; or
   (5) Emergency designee pursuant to Env-Dw 503.03.

(b) The notice provided pursuant to (a), above, shall include the following information:

   (1) The name, PWS identifier, and location of the system; and
   (2) Each individual’s name, mailing address, daytime telephone number, emergency telephone number, and, if available, a fax number and e-mail address.

(c) The owner shall:

   (1) Provide the notice required by (a), above, by mail, fax, e-mail, messenger, or other means of delivery; and
   (2) Follow up to confirm delivery, if the method of delivery does not automatically provide confirmation.

Source.  (See Revision Note at part heading for Env-Dw 503)  
#10465, eff 12-2-13
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Env-Dw 503.05 Notice of Change of System Owner.

(a) The following notifications shall be made whenever ownership of a public water system is transferred, whether by sale, gift, bequest, or any other transaction:

(1) The person who is transferring ownership shall notify the department of the impending transfer no less than one month before the anticipated date of transfer; and

(2) The person who is becoming the owner shall notify the department of the actual transfer within 10 days after its occurrence.

(b) The notice provided by the new owner shall specify the new owner’s name, mailing address, daytime telephone number, and, if available, a fax number and e-mail address.

Source. (See Revision Note at part heading for Env-Dw 503)
#10465, eff 12-2-13

Env-Dw 503.06 Request for Updates.

(a) The owner of a public water system shall, on request of the department, provide:

(1) A description of the system’s existing facilities;

(2) The status of current operations; and

(3) If available, information regarding planned capital improvements and expansion.

(b) The department shall request such updates whenever the department receives information which indicates that the information on file with the department is not current.

Source. (See Revision Note at part heading for Env-Dw 503)
#10465, eff 12-2-13

Env-Dw 503.07 Operations and Maintenance Manual.

(a) Each public water system shall have an operations and maintenance manual as described in (e), below.

(b) For new public water systems, the system developer shall provide an operations and maintenance manual as specified in (e), below, to the system owner prior to the start-up date of the system.

(c) The operations and maintenance manual shall be subject to inspection at the time of the final certified inspection pursuant to Env-Ws 372, Env-Ws 373, or Env-Ws 374, as applicable, or successor rules in subtitle Env-Dw.

(d) The water system owner shall maintain a copy of the operations and maintenance manual on-site at the water system.

(e) The operations and maintenance manual shall include:

(1) A description of how the system functions;

(2) Performance specifications and a description of each water system component;

(3) A description of the maintenance action and frequency of maintenance required for each equipment component; and
(4) Maintenance logs on which the date and type of maintenance activity performed can be recorded.

(f) The operations and maintenance manual shall be updated whenever:

(1) A new facility, source, or treatment process is added to the system; or

(2) Modifications to the facility, source, or treatment process render the existing manual obsolete.

(g) The system owner shall:

(1) Make the manual available to the department for review during inspections; and

(2) If any staff or design changes are made, provide a copy of the manual to the department upon request.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.08 Water System Rules.

(a) Subject to (b), below, each community water system shall develop written rules that address:

(1) Criteria relating to the extension of service to areas or customers not already served by the system, such as types and diameters of pipes and other components of the system; and

(2) Billings and payments and other user requirements, such as whether water conservation fixtures or practices are required, conditions or activities that are prohibited because they could contaminate the water supply for the water system, and penalties for failing to abide by the policies.

(b) If the system owner is a political subdivision and its local legislative body does not vote to approve funding for the development of written rules and the development of such rules is not fully funded by the state, the department shall not require the rules to be developed by that political subdivision.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.09 Termination of Service.

(a) For purposes of this section, “termination of service” means the suspension of service until such time as the underlying reason for the suspension has been corrected or otherwise resolved.

(b) Subject to (g), below, the water system owner may terminate a customer’s service for cause as specified in the water system’s rules.

(c) If the water system has not adopted rules covering termination of service, the owner shall terminate a customer’s service for cause only as provided in this section.

(d) In the absence of system-specific rules, any of the following shall constitute cause for termination of service:

(1) Failure to pay a bill that is not being disputed under applicable legal procedures;

(2) Misappropriation of water by the customer;
(3) Refusal by the customer to give reasonable access to the customer’s premises for necessary inspection of water system property;

(4) Failure by the customer to address a condition that could contaminate the water system;

(5) Failure by the customer to repair or replace customer-controlled equipment that is allowing water to flow when such flow is not intended;

(6) Violation of water use bans imposed by the water system, including but not limited to, exterior water use when a use restriction has been imposed by the water system;

(7) Violation of formally adopted water system rules provided that the rules identify service termination as a penalty for violation; or

(8) Tampering with water system property.

(e) Subject to (f) and (g), below, prior to terminating service the water system shall notify the customer in writing by registered mail or other method that provides confirmation of delivery at least 14 days prior to the termination date.

(f) The owner may terminate service without the advance written notice required by (e), above, if:

(1) The owner provides as much advance notice to the customer as is practicable under the circumstances;

(2) The owner notifies the department of the termination within 48 hours of the termination; and

(3) One or more of the following is true:
   a. A condition exists that poses a threat to the safety or reliability of the water system;
   b. A condition exists that poses a threat to life, health, or property; or
   c. The customer has abandoned the property served by the water system, as evidenced by:
      1. The service address premises being vacant for a period of 60 days without any notification to the water system; and
      2. The customer not responding to the owner’s attempts to contact him or her.

(g) A water system registered with the public utilities commission (PUC) shall use the termination procedure specified in the system’s PUC franchise and tariff.

   Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.10 Production and Treatment Logs.

(a) Each public water system shall record the system’s total production and the operational parameters of all treatment processes at the time of any inspection required by Env-Dw 503.15.

(b) Recordable factors shall be:

   (1) The chemical(s) that are being used;

   (2) The total quantity of each chemical used;
(3) A description of each analytical test being used to monitor the treatment process(es) and all test results; and

(4) The total gallons of water treated, if metered data is required or available.

(c) The owner shall maintain the logs so as to be available for review by the department.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.11 Priority Repair Arrangement.

(a) Where in-house system repair capability does not exist, the water system owner shall establish separate repair agreements for the water system components and distribution piping system.

(b) Each agreement shall require the repair company to:

(1) Notify the primary water system operator; and

(2) Prioritize the repair and restoration of service to all of the water system’s customers.

(c) The primary water system operator shall oversee all repairs. If the primary water system operator is not available and the repairs are of an emergency nature, the individual designated under Env-Dw 503.01 shall oversee the repairs.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.12 Notice of Planned Outages.

(a) Subject to (b), below, the system owner shall notify affected customers at least 2 days in advance of scheduled maintenance activities that are likely to result in the interruption of service to customers.

(b) If planned maintenance is unexpectedly rescheduled for reasons beyond the control of the system owner or if a service interruption occurs during scheduled maintenance activities that were not anticipated to result in the interruption of service, the owner shall provide as much advance notice as is practicable under the circumstances.

(c) For systems serving fewer than 100 individuals, regardless of the number of customers, the notice required by (a), above, shall be in writing and be delivered by first class mail, e-mail, or hand-delivery to each home or business served by the system.

(d) For systems serving 100 or more individuals, regardless of the number of customers, the notice required by (a), above, shall be delivered by one or more of the following methods, at the election of the system owner:

(1) In writing and delivered by first class mail, e-mail, or hand-delivery to each home or business affected by the planned activities;

(2) Other electronic means such as reverse 911 telephone service; or

(3) Published in a newspaper of general circulation for the area served by the system.

(e) When newspaper publication is used, the notice shall be published at least twice with the final required publication at least 2 days before the anticipated beginning of work.
(f) If the system serves only a residential community with 100 or more service connections and elects to use newspaper notice, the system owner shall also notify, by first class mail, e-mail, or hand-delivered written notice, any affected owners’ association that exists for the community.

Env-Dw 503.13 Prompt Repair and Maintenance Required.

(a) Each public water system owner shall promptly repair and fully maintain the operational readiness of the system.

(b) The actions required by (a), above, shall include:

1. The preparation and implementation of a preventative maintenance program; and
2. The prompt repair or replacement of system components that have failed or are otherwise not performing as intended.

Env-Dw 503.14 Required Action After Mechanical Breakdown or Other Failure.

(a) If the water system experiences a mechanical failure, water main break, or power failure or experiences a degradation of the water quality in the distribution system, the owner shall initiate one or more of the following actions, as appropriate to the situation:

1. Disinfection;
2. Bacterial testing;
3. Flushing; and
4. Public notice to consumers as specified in Env-Dw 503.02(d).

(b) The action(s) taken shall be determined by the system owner and primary certified operator after a careful analysis of the event.

Env-Dw 503.15 Public Water System Inspection Frequency.

(a) The water system owner shall inspect the system in accordance with the following:

1. Treatment processes with mechanical chemical addition or processes treating bacteria, nitrate, or nitrite shall be inspected at least once every 7 days;
2. Treatment processes without mechanical chemical addition shall be inspected at least once every 30 days;
3. Source pumping stations and booster stations with no treatment shall be inspected at least once every 30 days;
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(4) Facilities such as pressure reducing vaults and air release valves shall be inspected at least once every 6 months; and

(5) Surface water filtration facilities shall be inspected each day.

(b) The system owner may request a reduction of the inspection frequencies specified above by filing a written request with the department that includes:

(1) The name, PWS identifier, and location of the PWS;

(2) The type of contaminant being treated;

(3) The level of equipment duplication and backup;

(4) The level of remote surveillance or monitoring;

(5) The proposed inspection frequency;

(6) Whether the reduction is requested for a fixed or indefinite period of time; and

(7) Alternative methods of ensuring the continued integrity of the water system and water quality, such as staffing levels or capabilities that provide increased routine scrutiny of the equipment or processes for which the reduction is sought.

(c) The department shall approve a reduced inspection frequency if the request demonstrates that the reduced frequency will not jeopardize the continued integrity of the water system or the quality of water delivered to consumers.

(d) If the department approves a reduced inspection frequency, the approval shall include such conditions as the department determines are reasonably necessary to ensure that the criteria specified in (c), above, are met.

(e) If the department determines that a previously-approved reduced inspection frequency is jeopardizing the continued integrity of the water system or the quality of water delivered to consumers, the department shall initiate an action to suspend or revoke the approval in accordance with RSA 541-A and the provisions of Env-C 200 applicable to adjudicative proceedings.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.16 Conduct and Review of Inspections.

(a) The owner may delegate the responsibility to conduct the inspections required by Env-Dw 503.15(a) as follows:

(1) The individual conducting the inspection shall have knowledge of the facilities and functions requiring action or maintenance; and

(2) The individual performing the inspections specified in Env-Dw 503.15(a)(4) and (5) shall be a certified operator.

(b) The certified operator of a community or non-transient non-community water system shall determine the specific functions to be accomplished at the inspections required by Env-Dw 503.15(a).
(c) For any community or non-transient non-community water system, if the inspections required by Env-Dw 503.15(a) are not performed by the certified operator, the certified operator shall inspect the system and review the inspection records required by Env-Dw 503.17(a) on the following schedule:

1. Treatment processes with mechanical chemical addition or processes treating bacteria, nitrate, or nitrite, at least once every 30 days;
2. Treatment processes without mechanical chemical addition, at least once every 90 days; and
3. Source pumping stations and booster stations with no treatment, at least once every 90 days.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.17 Required Inspection Records.

(a) The water system owner shall keep a record on paper or in electronic format of each inspection that includes the following:

1. Time and date of the inspection;
2. Name of the individual performing the inspection;
3. Pertinent operational information, as specified in Env-Dw 503.10; and
4. General conditions at the time of the inspection.

(b) The records required by (a), above, shall be available for review by the department.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.18 Evaluation of Water Supply Adequacy Required. The water system owner shall review, periodically as needed, the sources and treatment of the water supply in relationship to customer demand, for the purpose of ensuring that the system can meet its obligations to customers.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.19 Short-Term Water Supply Inadequacies.

(a) Whenever it appears that demand will exceed supply on an emergency or short-term basis, the water system owner shall take appropriate action(s) to reduce nonessential demand.

(b) Reduction of demand shall be considered as an emergency response achievable by directive from the water system to its customers.

(c) The water system shall define “nonessential demand” in the rules adopted pursuant to Env-Dw 503.07.

(d) A water system owner shall inform the department of any action(s) taken or directed to reduce customer demand on a short-term or emergency basis within 3 working days of taking or directing such action(s).

(e) If a water shortage necessitating the reduction of nonessential demands occurs on an annual basis, the shortage shall not be considered an emergency situation that can be addressed under this section.
Env-Dw 503.20 Long-Term Water Supply Inadequacies.

(a) If demand exceeds supply for more than 30 days, the water system owner shall:

1. Implement water use restrictions;
2. Inform the department in writing of any actions taken or directed to restrict customer demand within 3 days; and
3. Submit a plan to permanently correct the problem to the department within 60 days.

(b) The plan required by (a)(3), above, shall include one or more of the following, as appropriate to the cause of the shortage:

1. Development of additional water supply source(s);
2. Implementation of a leak detection plan;
3. Implementation of a water conservation plan; or
4. Other actions as deemed necessary.

(c) In addition to developing the plan required by (a)(3), above, the water system owner may take action to modify long term demand by:

1. Adjusting water rates;
2. Installing customer service water meters;
3. Requiring installation of water conservation devices; or
4. Taking other actions such as described in Env-Wq 2101 relative to water conservation.

Env-Dw 503.21 Emergency Plans for Community Water Systems.

(a) The owner of a community water system shall prepare an emergency plan to address emergency situations including, but not limited to those listed in Env-Dw 503.02(a).

(b) The emergency plan shall include the following:

1. A description of the roles and responsibilities for each individual involved during an emergency situation;
2. A description of how the department, local officials, water system customers including any privately owned redistribution systems (PORS) or consecutive systems, and the general public will be notified of an emergency situation;
3. A step-by-step description of how the system will implement an acute public notice, including a boil water order, do not drink notice, or do not use notice;
(4) The mailing address, emergency telephone number, and non-emergency telephone number of each of the following local officials and agencies:
   a. The fire department;
   b. The police department;
   c. At least one ambulance service;
   d. The health officer;
   e. The water system’s primary certified operator(s); and
   f. The owner(s) of abutting water system(s);

(5) The emergency and non-emergency telephone numbers of the following state agencies:
   a. The state police;
   b. The department’s drinking water and groundwater bureau;
   c. The department of homeland security and emergency management; and
   d. The department of health and human services, division of public health services;

(6) The names and emergency and non-emergency telephone numbers for local service and repair contractors that might be needed in an emergency, including but not limited to:
   a. An electrician;
   b. The electric utility;
   c. A pump specialist;
   d. An excavation contractor;
   e. A state-accredited laboratory; and
   f. Media such as radio station and newspaper;

(7) The name and emergency and non-emergency telephone numbers for each service customer with unique water supply needs, including but not limited to:
   a. Hospitals;
   b. Nursing homes;
   c. Health rehabilitation centers;
   d. Housing for older persons as described in RSA 354-A:15;
   e. Fire department; and
   f. Schools;

(8) A description of how the water supply needs of service customers specified in (7), above, will be met;

(9) A description of any existing mutual aid agreements or memberships;

(10) A brief list of the community water system’s primary components, including but not limited to:
a. All active sources;
b. All operable inactive wells;
c. All source and distribution pump stations;
d. All water treatment facilities;
e. All storage tanks;
f. All drinking water chemicals; and
g. Primary and backup communications equipment;

(11) A description of the type of record drawings available and where the drawings are located;

(12) A description of the community water system that includes at least the following:
   a. The total production capacity of each active and inactive well or surface water treatment plant;
   b. The total storage capacity of the system;
   c. The average and maximum daily demand of the system;
   d. The system’s ability to isolate sections of the distribution system; and
   e. If applicable, a description, based on existing information, of the hydraulic interconnectivity of the system’s sources and an estimate of the extent to which a contamination event would affect total production capacity;

(13) A description of the system’s backup power capabilities, including but not limited to:
   a. Whether there is a manual or automatic transfer switch;
   b. Type and size of generator;
   c. Which operations the generator supports;
   d. Fuel type;
   e. How long the generator is capable of operating; and
   f. Testing and maintenance schedule of the generator;

(14) A description of alternate water sources or short-term measures the community water system could use during an emergency situation, including, but not limited to:
   a. The use of bottled water;
   b. Purchasing bulk water in accordance with Env-Dw 304;
   c. Reactivating deactivated sources of water;
   d. Interconnections with adjacent water supply systems;
   e. Installation of water treatment; and
   f. Imposing water use restrictions;

(15) A description of follow-up action and responsibility for returning to regular system operation; and
(16) For community water systems serving more than 1,000 persons that are located within the 10-mile Emergency Planning Zone as defined in 44 CFR 350.2 for either Seabrook Station or Vermont Yankee nuclear power plants, the emergency plan shall include the following:

a. A statement that the water system is located within the Emergency Planning Zone; and 

b. A statement that the water system will follow the established procedures for responding to radiological emergencies.

(c) Community water systems created on or after December 1, 2005 shall submit an emergency plan to the department as part of the final approval to operate process per Env-Ws 372.06 or successor rule in subtitle Env-Dw.

(d) The water system owner and primary operator shall sign and date the emergency plan prior to submittal to the department.

(e) The water system owner and primary operator shall:

(1) Annually review the emergency plan; and

(2) Update the plan as necessary to reflect current information.

(f) The system owner shall file the most recent emergency plan with the department at least once every 6 years.

(g) The emergency plan shall be available for review during each scheduled sanitary survey, as required by Env-Dw 720.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

Env-Dw 503.22 Available Sources of Water.

(a) A public water system shall use only the source(s) of water identified to the department and approved, to the extent such approval was required at the time the source was activated.

(b) Before introducing water to the distribution system from any supplemental well that meets the criteria of (a), above, the owner shall verify the absence of coliform bacteria from the introduced water.

(c) No public water system shall introduce water from a new source that has not been approved by the department pursuant to the applicable provisions of Env-Dw 300.

Source. (See Revision Note at part heading for Env-Dw 503) #10465, eff 12-2-13

APPENDIX

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