

HEARING REPORT

**Prepared Pursuant to Section 4-168(e) of the
Connecticut General Statutes**

**Regarding
Amendment of the Public Drinking Water Quality Standards**

**Hearing Officer:
Kathryn K. Keenan, Esq.**

**Date of Hearing:
May 20, 2014**

On April 4, 2014, under the authority of §§ 19a-36 and 25-32 of the Connecticut General Statutes (*Conn. Gen. Stat.*), the Commissioner of the Department of Public Health (Commissioner of Public Health) published on the Secretary of the State's eRegulations system and on the Department of Public Health (Department) website a notice of intent to amend the public drinking water quality standards by adding subsection (w) to § 19-13-B102 of the Regulations of Connecticut State Agencies (RCSA). The Department received on April 16, 2014, from The Connecticut Water Works Association, Inc., an association of public water supply utilities with more than fifteen members, a request for a public hearing on the amended regulation. On May 9, 2014, the Department gave notice that it would hold a public hearing on the amended regulations. Pursuant to such notice, a public hearing was held on May 20, 2014.

I. Hearing Report Content

As required by *Conn. Gen. Stat.* § 4-168(e), this report describes the proposal, identifies principal reasons in support of and in opposition to the proposal, and summarizes and responds to all comments on the proposal.

II. Summary of Proposal

The Commissioner of Public Health is proposing to amend § 19-13-B102 of the RCSA by adding a new subsection, subsection (w). The primary purpose of the proposal is to require community water systems (CWSs or systems) to have emergency generators or department-approved sources of backup power and emergency contingency and response plans. Both the requirement for generators or department-approved sources of back-up power and the plans will help to prevent loss of water pressure or water outages, thereby protecting the systems from exposure to bacterial contamination and associated waterborne diseases.

III. Opposition to the Proposal

No submitted comments oppose adoption of this proposal.

IV. Summary of Comments

Oral comment was given at the hearing by:

1. Robert W. Wesneski
Avon Water Company
P.O. Box 424
Avon, CT 06001

2. Stephen F. Cerruto
Torrington Water Company
P.O. Box 867
Torrington, CT 06790
3. David L. Radka
Connecticut Water Company
93 West Main Street
Clinton, CT 06413
4. Elizabeth Gara
The Connecticut Water Works Association, Inc.
1245 Farmington Avenue
West Hartford, CT 06107
5. Amy L. Velasquez
Regional Water Authority
90 Sargent Drive
New Haven, CT 06511
6. George S. Logan
Aquarion Water Company
714 Black Rock Turnpike
Easton, CT 06612

Written comments were received from the following persons:

1. Stephen Pratt
The Connecticut Water Works Association, Inc.
1245 Farmington Avenue
West Hartford, CT 06107
2. Amy L. Velasquez
Regional Water Authority
90 Sargent Drive
New Haven, CT 06511
3. David L. Radka
Connecticut Water Company
93 West Main Street
Clinton, CT 06413
4. Robert W. Wesneski
Avon Water Company
P.O. Box 424
Avon, CT 06001

5. George S. Logan
Aquarion Water Company
714 Black Rock Turnpike
Easton, CT 06612
6. Elizabeth Gara
The Connecticut Water Works Association, Inc.
1245 Farmington Avenue
West Hartford, CT 06107

All comments submitted are summarized below with the Department's responses. When changes to the proposed text are indicated in response to a comment, the new or revised text is provided.

(1) Conflict with or duplication of the Public Utilities Regulatory Authority generator regulations, §§ 16-11-99 through 16-11-99d of the Regulations of Connecticut State Agencies

Connecticut Water Company (CWC) and the Executive Director of the Connecticut Water Works Association (the Executive Director of CWWA) raised concerns that the Department's regulations may conflict with the Public Utilities Regulatory Authority (PURA) generator regulations, §§ 16-11-99 through 16-11-99d of the Regulations of Connecticut State Agencies, and recommended that the Department ensure that there are no conflicts or provide an exemption for those water companies subject to the PURA generator regulations. §§ 16-11-99 through 16-11-99d of the Regulations of Connecticut State Agencies apply to every person owning, leasing, maintaining, operating, managing or controlling any pond, lake, reservoir, stream, well or distributing plant or system employed for the purpose of supplying water to fifty or more consumers, but does not apply to homeowners, condominium associations providing water only to their members, homeowners associations providing water to customers at least 80 percent of whom are members of such associations, a municipal waterworks system established under chapter 102, a district, metropolitan district, municipal district or special services district established under chapter 105, chapter 105a or any other general statute or any public or special act which is authorized to supply water, or any other waterworks system owned, leased, maintained, operated, managed or controlled by any unit of local government under any general statute or any public or special act.

Department Response: The Department inadvertently deleted the exemption for those water companies subject to the PURA generator regulations. The following provision will be included in the final version of § 19-13-B102(w):

“(2) Subdivision (1) of this subsection does not apply to those CWSs subject to sections 16-11-99 through 16-11-99d, inclusive, of the Regulations of Connecticut State Agencies.”

(2) § 19-13-B102(w)—Applicability

The Avon Water Company (Avon) stated that the regulation cannot be applied the same way to every CWS, i.e., a CWS that serves 25 customers versus a large system like the Metropolitan District Corporation (MDC). Avon requested that the Department limit the applicability of §19-13-B102(w) to only CWSs serving less than 10,000 people. According to Avon, during the last three major storms, large water companies performed extremely well.

Torrington Water Company (TWC) and the Executive Director of CWWA stated that each system should determine what type of backup power it needs and where to locate such power as the system

knows its system and its limitations. TWC stated that any deficiencies should be addressed when the Department is reviewing the system's water supply plan.

Department Response: The Department wants to apply the regulation uniformly to all systems regardless of size because of the regulation's importance. The provision of potable water during a power outage is of such importance that there should not be any exceptions to the generator requirement. In addition, with respect to TWC's comment suggesting that the Department should address any deficiencies when it reviews a system's water supply plan, not all systems are required to file water supply plans with the Department. In addition, the Department's review of water supply plans and a system's update to its water supply plan are at different stages of review and update, respectively, thereby making it difficult to address deficiencies in all systems consistently and effectively. By requiring that the regulation uniformly apply to all systems regardless of size, the Department is ensuring that all systems have backup power in the event of an emergency.

(3) § 19-13-B102(w)(1)(A)—Compliance dates

CWC recommended that the timeframes by which a system is required to have installed and maintained a generator be extended for water companies that acquire a non-compliant water system.

Department Response: The Department agrees with CWC's comment and has added a provision providing for an extension of time upon a showing of extenuating circumstances. Specifically, §19-13-B102(w)(1)(A) will read as follows in the final version of § 19-13-B102(w):

“(1)(A)(i) Each CWS shall have installed and maintained in accordance with the schedule in Table 1-W1 of this clause based on the CWS's type a standby stationary on-site generator capable of providing sufficient power to supply the power demands of the CWS at each of the CWS's facility locations. At a minimum, the generator shall be equipped with an automatic transfer switch system, fueled by either propane or natural gas, and in compliance with all applicable federal, state and local requirements, including all requirements applicable to generators and the installation thereof. For purposes of this subsection, “facility location” means, and shall include, but is not limited to, sources, pumping stations, treatment plants, and storage tanks at which electric power is required to maintain a continuous supply of potable water at adequate volume and pressures.

TABLE 1-W1. COMPLIANCE DATES

If the CWS is this type of CWS	The CWS shall comply with subparagraph (A) within:
(1) CWS serving $\geq 100,000$ people	1 year of the effective date of this subsection
(2) CWS serving 10,000 – 99,999 people	2 years of the effective date of this subsection
(3) CWS serving $< 10,000$ people	3 years of the effective date of this subsection

(ii) If extenuating circumstances prevent a CWS from complying with the schedule in Table 1-W1 of clause (i) of this subparagraph, a CWS may submit an application to the department requesting an extension by which to comply with the requirements of clause (i) of this subparagraph. Such application shall include the extenuating circumstances that prevent the CWS from complying with the requirements of clause (i) of this subparagraph, and shall be submitted in accordance with subsection (t) of this section prior to the CWS's date of compliance in Table 1-W1 of clause (i) of this subparagraph.”

(4) § 19-13-B102(w)(1)(A)—Definition of “facility”

The Executive Director of CWWA stated that the definition of “facility” is very broad and encompasses anywhere that electric power is required to maintain a continuous supply of water. According to the Executive Director of CWWA, the regulations require a generator at all facilities, even where multiple pump stations serve a single area and redundancies exist.

Department Response: The regulation specifically requires a generator at each of the CWS’s facility locations, which is defined as a location where “power is required to maintain a continuous supply of potable water at adequate volume and pressures”. If power is required at a certain facility location to maintain a continuous supply of potable water, then the CWS is required to have a standby stationary on-site generator installed and maintained at such location or to use a portable generator to meet such requirement.

(5) § 19-13-B102(w)(1)(A) and (B)—Starting power demands

CWC raised concerns regarding requiring a generator capable of providing sufficient power to supply the maximum starting power demands and the running demands at each facility. According to CWC, starting power is significantly higher than the running load demand of a facility. Sizing a generator to meet full starting power is not good design practice. CWC recommends deleting “to supply the maximum starting power demands and the running demands” so that it reads “capable of providing sufficient power for the CWS at each of the CWS’s facility locations.

Department Response: The Department has amended the regulation to reflect this comment. Specifically, §§19-13-B102(w)(1)(A) and (B) will read as follows in the final version of § 19-13-B102(w):

“(1)(A) ... a standby stationary on-site generator capable of providing sufficient power to supply the power demands of the CWS at each of the CWS’s facility locations....

(B)...

(i) ... The portable generator is capable of providing sufficient power to supply the power demands of the CWS at each of the facility locations at which the portable generator will be used...”

(6) § 19-13-B102(w)(1)(A) and (B)—Protection against inclement weather and vandalism

CWC raised concerns regarding what “protection” means and how such protection could be achieved in certain locations. CWC recommended that this requirement be deleted.

Department Response: The Department agrees with CWC that a system needs to exercise its own judgment to ensure protection of its generator. Therefore, the Department has removed this requirement from the regulation. Please note, however, that a system runs the risk that if a generator is not protected against inclement weather and vandalism, it may be damaged by such, and therefore unable to provide the power required to maintain a continuous supply of potable water at adequate volume and pressures. If a system is not able to maintain a continuous supply of potable water at adequate volume and pressures at each of its facility locations, the system will be in violation of the regulation and subject to enforcement.

(7) § 19-13-B102(w)(1)(B)—Requirement for propane or natural gas fueled generator

(A) Aquarion Water Company, South Central Regional Water Authority, the Executive Director of the CWWA, CWWA—Regulations and Research Committee, TWC and CWC raised concerns regarding the requirement to install and maintain a propane or natural gas fueled generator. The concerns raised include concerns with respect to safety, security, cost, emergency fuel availability, reliability, meeting set back distance requirements, and land use concerns. The following are examples of concerns raised:

- Safety:
 - If there is a storm or significant fire near the system and the natural gas supply and power are shut off, no water will be available for firefighting.
 - Propane and natural gas are explosive.
 - Run the risk of gas leaks with natural gas and propane.
 - Many municipalities do not allow the storage of propane underground. As a result, very large propane tanks will have to be installed above-ground on cradles, creating security and safety issues.
 - Many systems have facilities in town buildings, such as basements of schools, where storage of propane will raise safety concerns.
 - Diesel fuel is the safest to handle and readily available.
- Cost:
 - Trailer mounted generators sizes 35 kilowatts and larger are only approved for diesel fuel generators.
 - Only one company, Cummins, makes a large generator that is fueled by natural gas or propane and it is prohibitively expensive. The largest propane and natural gas generators can cost up to twice as much as a diesel generator.
- Emergency fuel availability:
 - Last winter, Connecticut experienced a shortage of propane because demand was higher than expected.
 - Diesel fuel takes up less space than gas, which allows a system to operate longer between fuel deliveries, which may be delayed in a storm situation.
 - Diesel fuel or #2 fuel is widely available in a crisis situation.
- Reliability: Propane-fueled generators may not be reliable in very cold weather to vaporization issues.
- Land use concerns:
 - Meeting set back distance requirements is difficult.
 - Many water systems are located in residential areas, which are not suitable locations for very large propane tanks.
 - Water companies can manage the risks associated with the use of diesel generators, such as fuel spills, with proper siting and design of the generator and the way in which the water company operates.

- Storage of up to 1,000 gallons of propane will require consideration of set back and of land use issues.
- The storage of petroleum fuels is already highly regulated. For example, above-ground petroleum tanks are required to comply with the U.S. Environmental Protection Agency's Spill, Prevention, Control and Countermeasure Regulations. Also, the installation of above-ground fuel tanks or generators with belly tanks must meet NFPA standards and receive approval by the local building inspector or fire marshal.

Department Response: The Department has considered the comments received regarding propane and natural gas. The Department in the regulation preferred propane and natural gas as fuel sources because they are cleaner and less likely to contaminate water sources than liquid fuel sources. The major concern with the use of liquid fuels is preventing the contamination of water sources by such fuels. Recognizing, however, that liquid fuels may be used by systems, the Department included conditions that must be satisfied if liquid fuels are to be used, such as the requirement for a containment area capable of holding at least 110 percent of the full volume of the tanks storing the liquid fuel.

If extenuating circumstances prohibit a system from complying with the conditions associated with the use of liquid fuel, the Department has added a provision providing for a waiver upon a showing of such extenuating circumstances. Specifically, §19-13-B102(w)(1)(D)(i) and (ii) will read as follows in the final version of § 19-13-B102(w):

“(D)(i) A standby stationary on-site generator installed by the CWS or a portable generator available for use by the CWS prior to the effective date of this subsection, and any replacement thereto, may be fueled by liquid fuel, instead of propane or natural gas, and does not have to meet the conditions in subclauses (I) and (II) of this clause. A standby stationary on-site generator installed or a portable generator to be used by the CWS on or after the effective date of this subsection may be fueled by liquid fuel only if the CWS meets the conditions in subclauses (I) and (II) of this clause. For purposes of this section, “liquid fuel” means a liquid fueling agent including, but not limited to, diesel, gasoline, oil, or kerosene.

(I) The liquid fuel used for fueling the standby stationary on-site or portable generator is stored in an above-ground tank with a containment area capable of holding at least 110 percent of the full volume of the tank storing the liquid fuel; and

(II) The above-ground tank in which the liquid fuel is stored, liquid-fuel supply line and liquid-fueled generator are located more than 200 feet away from the CWS's source or sources of supply.

(ii) If extenuating circumstances prevent a CWS from complying with the conditions in conditions in clauses (i)(I) and (II) of this subparagraph, a CWS may submit an application to the department requesting a waiver from such conditions. Such application shall include the extenuating circumstances that prevent the CWS from complying with the conditions in clauses (i)(I) and (II) of this subparagraph, and shall be submitted in accordance with subsection (t) of this section.

(8) § 19-13-B102(w)(1)(B)—Use of portable generator to meet requirements

The CWWA—Regulations and Research Committee raised a question regarding whether a portable generator is required for each facility or if a water company could use one generator for a number of facilities. The Executive Director of CWWA requested clarification regarding how portable generators are connected and the acceptable ratio of portable generators to facility locations.

Department Response: Under § 19-13-B102(w)(1)(B), a system is not required to have a portable generator assigned to each of the system's facility locations. Rather, the system may have one portable generator that is assigned to two or more facility locations and meet the requirements of the regulation. There is a risk, however, that if there is a state-wide power outage, a system will not have a sufficient number of portable generators to ensure that each of its facility locations has the power to maintain a continuous supply of potable water at adequate volume and pressures. If a system is not able to maintain a continuous supply of potable water at adequate volume and pressures at each of its facility locations, the system will be in violation of the regulation and subject to enforcement.

(9) § 19-13-B102(w)(1)(C)—Department approval of alternative source of backup power

The Executive Director of CWWA raised concerns regarding requiring Department approval to use an alternative source of backup power. According to the Executive Director of CWWA, requiring Department approval will create delays in the installation of generators given the Department's backlog in approving permits and other plans. The Executive Director of CWWA stated that a water company is in a better position than the Department to determine whether an alternative source of backup power may be used safely. As such, the Executive Director of CWWA requested that the Department revise the regulations to address situations where an alternative source may be beneficial, rather than requiring a system to obtain approval from the Department to use the alternative source. According to the Executive Director of CWWA, a water company is in a better position than the Department to determine whether an alternative source of backup power may be used safely.

Department Response: The Department agrees with the Executive Director of CWWA's comments. As such, if a system would like to use an alternative source of backup power, the Department is requiring that the system file a statement with the Department prior to the CWS's date of compliance stating that the alternative source of back-up power meets the requirements in the regulations. Specifically, §19-13-B102(w)(1)(C) will read as follows in the final version of § 19-13-B102(w):

“(C) A CWS may use an alternative source of backup power to meet the requirements of subparagraph (A) of this subdivision if the alternative source of backup power is an effective source of backup power and it meets the requirements in clauses (i) through (iv), inclusive, of this subparagraph. The CWS shall file with the department prior to the CWS's date of compliance in Table 1-WI of subparagraph (A)(i) of this subdivision a statement stating the alternative source of backup power the CWS is using to meet the requirements of subparagraph (A) of this subdivision, that such alternative source of backup power is an effective source of backup power and that such alternative source of backup power meets the requirements in clauses (i) through (iv), inclusive, of this subparagraph. Such statement shall be signed under oath by the owner, or the person who is authorized to bind and act on behalf of the owner, of the CWS and shall contain a notice that false statements made therein are punishable in accordance with section 53a-157b of the Connecticut General Statutes.

(i) The alternative source of backup power is capable of providing sufficient power to supply the power demands of the CWS at the facility location at which the alternative source of backup power will be used;

(ii) The CWS shall have installed at the facility location at which the alternative source of backup power will be used a manual or automatic transfer switch system to facilitate transition to the alternative source of backup power;

(iii) The alternative source of backup power shall, when in use, be connected to a location that meets all applicable federal, state and local requirements; and,

(iv) The CWS shall have installed at the facility location at which the alternative source of backup power will be used suitable controls and connections by which to connect the alternative source of backup power, if applicable.”

(10) § 19-13-B102(w)(1)(D) and (E)—Grandfather provision

(A) The Executive Director of CWWA and the CWWA—Regulations and Research Committee stated that the grandfather provision regarding on-site or portable generators that use liquid fuel is null and void if a water company fails to file a report timely.

(B) CWC and Avon raised concerns regarding the grandfather provision with respect to water companies that are taken over by another water company. If the acquired water company failed to timely submit the report, the acquiring water company is penalized. CWC recommended that the Department permit the new owner of the acquired water company to file a report as well.

Department Response: The Department agrees with the comments of the Executive Director of CWWA, the CWWA—Regulations and Research Committee, CWC and Avon, and has added a provision providing for an extension of time upon a showing of extenuating circumstances. Specifically, §19-13-B102(w)(1)(E) will read as follows in the final version of § 19-13-B102(w):

“(E) Each CWS that has a standby stationary on-site generator installed or a portable generator that was available for use prior to the effective date of this subsection shall file with the department a statement stating the make and model of such generator within 8 months of the effective date of this subsection. If a CWS fails to file such information with the department within 8 months of the effective date of this subsection, the department will not recognize the CWS’s stationary on-site generator or a portable generator as a generator installed or available for use, respectively, prior to the effective date of this subsection for purposes of this subparagraph and therefore the CWS is required to comply with the requirements of subparagraph (D) of this subdivision. If extenuating circumstances prevented a CWS from providing such information to the department within 8 months of the effective date of this subsection, a CWS may submit an application to the department requesting an extension by which to provide such information to the department. Such application shall include the extenuating circumstances that prevented the CWS from providing such information to the department within 8 months of the effective date of this subsection, and shall be submitted in accordance with subsection (t) of this section. Extenuating circumstances include, but are not limited to, a CWS’s acquisition of another CWS pursuant to sections 16-262n and 16-262o of the Connecticut General Statutes and the acquired CWS did not submit the required information timely.”

(11) § 19-13-B102(w)(1)(D)—Conditions

The Executive Director of CWWA and Aquarion stated that facility site conditions may make it impossible to comply with the requirement permitting new generators to use liquid fuel only if the fuel is above ground with a containment area capable of holding at least 110 percent of the full volume of the tank storing the liquid fuel and more than 200 feet from a source of supply. Aquarion

recommended that the Department include language allowing for flexibility in the Department's review and consideration of each specific site condition. CWC requested that the Department provide the option for a waiver of the condition requirements in cases where it is impossible to comply.

Department Response: The Department agrees with the comments of the Executive Director of CWWA and Aquarion, and has added a provision providing for a waiver upon a showing of extenuating circumstances that prohibits the system from complying with the conditions associated with the use of liquid fuel. Specifically, §19-13-B102(w)(1)(D)(i) and (ii) will read as follows in the final version of § 19-13-B102(w):

“(D)(i) A standby stationary on-site generator installed by the CWS or a portable generator available for use by the CWS prior to the effective date of this subsection, and any replacement thereto, may be fueled by liquid fuel, instead of propane or natural gas, and does not have to meet the conditions in subclauses (I) and (II) of this clause. A standby stationary on-site generator installed or a portable generator to be used by the CWS on or after the effective date of this subsection may be fueled by liquid fuel only if the CWS meets the conditions in subclauses (I) and (II) of this clause. For purposes of this section, “liquid fuel” means a liquid fueling agent including, but not limited to, diesel, gasoline, oil, or kerosene.

(I) The liquid fuel used for fueling the standby stationary on-site or portable generator is stored in an above-ground tank with a containment area capable of holding at least 110 percent of the full volume of the tank storing the liquid fuel; and

(II) The above-ground tank in which the liquid fuel is stored, liquid-fuel supply line and liquid-fueled generator are located more than 200 feet away from the CWS's source or sources of supply.

(ii) If extenuating circumstances prevent a CWS from complying with the conditions in clauses (i)(I) and (II) of this subparagraph, a CWS may submit an application to the department requesting a waiver from such conditions. Such application shall include the extenuating circumstances that prevent the CWS from complying with the conditions in clauses (i)(I) and (II) of this subparagraph, and shall be submitted in accordance with subsection (t) of this section.

(12) § 19-13-B102(w)(2)(A)—Testing and reporting requirements

The Executive Director of CWWA stated that the reporting requirements, including the requirement to register existing generators and annually notify the Department of compliance with the regulations, is burdensome and unwarranted. The CWWA—Regulations and Research Committee stated that requiring a system to carry out generator testing will lead to an interruption of operation of the facility and surges of pumps and instrumentation. According to the CWWA—Regulations and Research Committee, it may also lead to unforeseen water quality issues.

Department Response: The Department has considered the comments received regarding the testing and reporting requirements. In light of the comments received, the Department has amended the regulation by removing the requirement that a system test its generator at the frequency recommended by the manufacturer of the generator or the department-approved alternative source of backup power the ability of such generator or the department-approved alternative source of backup power, respectively, to operate the system. Please note, however, that a system that does not test its generator runs the risk that the generator will not work when needed and therefore will be unable to provide the power required to maintain a continuous supply of potable water at adequate volume and

pressures. If a system is not able to maintain a continuous supply of potable water at adequate volume and pressures at each of its facility locations, the system will be in violation of the regulation and subject to enforcement.