



**Connecticut Department of
Energy & Environmental Protection**
Bureau of Materials Management & Compliance Assurance
Permitting & Enforcement Division

General Permit for the Discharge of Water Treatment Wastewater

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(pursuant to CGS Sec. 22a-6aa)

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General Permit for the Discharge of Water Treatment Wastewater

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General Permit for the Discharge of Water Treatment Wastewater

Section 1. Authority

This general permit is issued under the authority of Section 22a-430b of the General Statutes.

Section 2. Definitions

The definitions of terms used in this general permit shall be the same as the definitions contained in Section 22a-423 of the General Statutes and Section 22a-430-3(a) and Section 19-13-B102(a) of the Regulations of Connecticut State Agencies. If any term has multiple definitions in such statutes and regulations, the definitions in Section 22a-423 of the General Statutes, and Section 22a-430-3 (a) of the Regulations of Connecticut State Agencies shall apply. In addition, the following definitions shall apply:

"Coastal waters" means those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks which contain a salinity concentration of at least five hundred parts per million under low flow conditions.

"Filtration" means a process of reducing concentrations of sand, grit, iron, manganese, or turbidity by passing water through a straining media.

"Filter to waste" Means the initial volume of filtrate produced following backwash of a filter, or following the initial construction, rebuilding or maintenance of a filter.

"Laboratory wastewaters" means laboratory utensil cleaning wastewaters with no chemical additives or reagents containing any of the substances listed in Appendix B, Tables II, III, and V, or Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies. Laboratory wastewater covered under this general permit includes only that which is generated at a facility which treats water supplies for potable or industrial process use.

"Oxidation/filtration" means the process of converting an undesirable dissolved solid to a particulate which is then removed by the addition of ozone, oxygen, manganese dioxide or permanganate followed by filtration.

"Permittee" means any person who or municipality which initiates, creates, originates or maintains a discharge in accordance with Section 3 of this general permit.

"Point of entry water treatment device" means a device for the treatment of potable water which is located at the water service entry in a building.

"POTW Authority" means the chairperson, or duly authorized representative, of the Water Pollution Control Authority which owns or operates a Publicly Owned Treatment Works.

"Public Water System" as defined in Section 19-13-B102(a) of the Regulations of Connecticut State Agencies.

"Raw water" means water withdrawn from a reservoir or well prior to any physical treatment of such water.

"Registrant" means a person who or municipality which submits a registration in accordance with Section 4 of this general permit.

"Registration" means a completed registration form and registration fee submitted to the Commissioner pursuant to Section 4 of this general permit.

"Site" means geographically contiguous land on which an authorized activity takes place under this general permit. Non-contiguous land owned by the same person and connected by a right-of-way which such person controls and to which the public does not have access shall be deemed the same site.

"Source Water" as defined in Section 19-13-B102(a) of the regulations of Connecticut State Agencies.

"Water Quality Standards" means water quality standards as adopted by the Commissioner in accordance with Section 22a-426 of the General Statutes.

"Water Treatment Facility" means any system, excluding a reservoir, used to treat water for potable or industrial process use, including but not limited to any industrial, municipal or private water treatment facility.

"Water Treatment Wastewaters or WTW" means wastewaters generated by a well or water treatment facility, used to produce water supplies for potable or industrial process use, including but not limited to wastewaters from the following:

- (a) clarifier tank sludge blowdown;
- (b) clarifier tank supernatant;
- (c) facility and equipment cleaning rinsewaters, excluding rinsewaters generated by the rinseout of containers used to store any chemical for which an effluent limitation is not specified in Section 5(b) of this general permit;
- (d) activated carbon and filter media backwash, including filter to waste, and regeneration wastewaters;
- (e) raw or treated water from equipment leakage and bleed-off;
- (f) mechanical and non-mechanical sludge dewatering wastewaters;
- (g) infiltration bed and settling lagoon wastewaters;
- (h) raw or treated water from process sampling points and on-line process analytical instrumentation;

- (i) designed overflows from storage tanks and other WTW facilities resulting from emergency conditions and routine maintenance;
- (j) start-up wastewaters for water treatment plants, facilities or equipment which commenced operation after the date of issuance of this General Permit;
- (k) ion exchange regeneration wastewaters;
- (l) reverse osmosis brine; and
- (m) laboratory wastewaters.

WTW does not include wastewaters generated by any residential or commercial point of entry treatment device.

Section 3. Authorization Under This General Permit

(a) Activities Authorized

This general permit authorizes discharges comprised solely of WTW, as defined above, provided:

- (1) The discharge is *not* authorized by a valid individual permit issued under Section 22a-430 of the General Statutes.
- (2) For any discharge to a Publicly Owned Treatment Works (POTW) initiated after the effective date of this general permit, the information specified in Section 4(c)(2)(H) of this general permit has been submitted to the POTW authority and the POTW authority has approved the discharge.
- (3) The discharge of WTW within a coastal boundary as defined in Section 22a-94 of the General Statutes is consistent with all applicable goals and policies of the Coastal Management Act specified in Section 22a-92 of the General Statutes.
- (4) The discharge of WTW does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species in accordance with Section 26-310 of the General Statutes.
- (5) No categorical effluent limitation standard or guideline adopted by the U.S. Environmental Protection Agency under the federal Clean Water Act is applicable to the discharge. Any discharge of water, substance or material into the waters of the state other than those specified in this subsection is not authorized by this general permit. Any person who or municipality which wishes to initiate, create, originate or maintain such other discharge shall first apply for and obtain an individual permit under Section 22a-430 of the General Statutes.

(b) Geographic Area

This general permit applies throughout the State of Connecticut.

(c) ***Effective Date and Expiration Date***

This general permit is effective on March 30, 2016 and expires on March 29, 2018.

(d) ***Effective Date of Authorization***

The effective date of authorization under this general permit is the effective date of this general permit listed in subsection (c) of this section or the date the discharge is initiated in accordance with the requirements of Section 3 (a) of this General Permit, whichever is later.

(e) ***Issuance of an Individual Permit***

When the Commissioner issues an individual permit under Section 22a-430 of the General Statutes authorizing a discharge previously authorized by this general permit, the applicability of this general permit as it applies to the individual permittee is automatically terminated on the effective date of the individual permit.

Section 4. Registration Requirements

(a) ***Who Must Submit a Registration***

Any person who or municipality which initiates, creates, originates or maintains a WTW discharge as defined in this general permit and in accordance with Section 3 of this general permit, with the exception of those discharges specified below, shall submit a completed registration form and fee. For any discharge of WTW which was initiated on or before the effective date of this general permit, such registration shall be submitted no later than 365 days after the effective date of this permit, unless the discharge is covered by an individual permit. Discharges which are authorized by an individual permit, and which otherwise would qualify for this general permit, shall register for coverage under this general permit at least 180 days prior to expiration of the individual permit. For any other discharge of WTW, the registration shall be submitted before such discharge is initiated. If the source or activity generating the discharge for which a registration is submitted under this general permit is owned by one person or municipality but is leased or in some other way the legal responsibility of another person or municipality (the operator), it is the operator's responsibility to submit the registration required by this general permit.

Registrants under this general permit whose registration expired March 29, 2016 are not required to renew their registration for the one year extension to March 29, 2017.

Any person initiating, creating, originating or maintaining any of the following discharges pursuant to this general permit need not submit a registration or fee:

- A discharge consisting only of raw water;
- Any discharge from pump leakage, sampling taps, or on-line analytical instrumentation which are not discharged directly to a surface water body;

- Any discharge generated from the backwash of filtration, oxidation/filtration, or ion exchange units designed to remove iron, manganese, sand, grit, or turbidity from wells used as a source of potable water supply provided the discharge is less than 500 gallons per day and directed to either a sanitary sewer or the groundwaters of the state.

(b) Scope of Registration

A registration shall only include discharges of WTW from a single site. All discharges of WTW occurring at a particular time for a single site shall be included in the same registration.

(c) Contents of Registration

(1) Fees

- (A) A registration fee of \$625 for any person or \$312.50 for any municipality shall be submitted with a completed registration form. A registration shall not be deemed complete and no activity shall be authorized by this general permit unless the registration fee has been paid in full.
- (B) The registration fee shall be paid by certified check or money order payable to the **Department of Energy and Environmental Protection**. The check shall state on its face, "Water Management Permit Fee".
- (C) The registration fee is nonrefundable.

(2) Registration Form

A registration shall be submitted on a form prescribed by the Commissioner and shall include, without limitation, the following:

- (A) Legal name, address, and telephone number of the person or municipality proposing to initiate, create, originate or maintain the discharge and of the person who or municipality which owns the activity or source generating the discharge. If any such person(s) is a corporation transacting business in Connecticut, include the exact name as registered with the Connecticut Secretary of the State.
- (B) Legal name, address, and telephone number of the owner of the property on which the discharge is proposed to be located.
- (C) Legal name, address, and telephone number of the registrant's attorney or other representative, if any.
- (D) Location address of the site of the discharge(s) for which the registration is submitted.
- (E) The maximum daily flow of all WTW discharges, in gallons per day, to be discharged at the site.

- (F) An estimate of when the discharge began or will begin and the estimated duration of the discharge.
- (G) For discharge(s) to surface water or to ground water, an 8 1/2" by 11" copy of applicable sections of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the exact location of the discharge, specifying the longitude and latitude of the discharge to within the closest 15 seconds, and including the name of the USGS map.
- (H) For discharges to a POTW initiated after the effective date of this general permit, the information listed below and a written certification from the registrant stating that 1) the information outlined below has been submitted to the appropriate POTW authority, and 2) the registrant has received written certification signed by the appropriate POTW authority that it has received and reviewed the information outlined below and has authorized the discharge to the POTW:
 - (i) an analysis of the impact of the discharge on the hydraulic capacity of the receiving POTW, including but not limited to the receiving sewerage system, force mains, pumping stations;
 - (ii) the rate, frequency, and time period that the WTW will be discharged to the POTW;
 - (iii) a detailed description of the characteristics of the WTW;
 - (iv) provisions for the controlled discharge of WTW to the receiving POTW, including but not limited to equalization, limiting hydraulic loading, or limiting the total suspended solids loading;
 - (v) an evaluation of the impact of the discharge of WTW on POTW sludge generation and handling, and any potential alteration of the character of the sludge which may render it unsuitable for further treatment by anaerobic/aerobic digestion, high temperature/pressure and chemical oxidation, sludge dewatering, and composting; or unsuitable for ultimate disposal by incineration, landfilling, or land application;
 - (vi) the ratio of flow of WTW in relation to total influent to the POTW; and
 - (vii) any other information necessary to determine whether such discharge will adversely impact the performance of the POTW and cause any violation of their discharge permit, or render the sludge generated at the POTW unsuitable for landfilling, land application, or incineration.
- (I) For any discharge initiated on or before the effective date of this general permit, which does not comply with the treatment and control requirements contained in Section 5(a)(5) as of the effective date of this general permit, a report detailing all such conditions or terms which are not being complied with, and a schedule of modifications or facility upgrades required to meet

any such term or condition.

- (J) A plan for minimizing the use of copper if the registrant utilizes a water supply reservoir and copper compounds are used, or intended to be used in the water supply reservoir. Such plan shall take into account, at a minimum, an assessment of nutrient loadings in the watershed, the amount of copper needed to control algae, intake levels, and opportunities for recycling the wastewater stream and shall include a plan for monitoring algae and using copper sulfate only when needed to control algae.
- (K) The following certification, signed by a professional engineer licensed to practice in Connecticut:
- (i) For any WTW discharge which is required to be registered and which has not been initiated, created, originated or maintained as of the date the registration is submitted:
- "I certify that in my professional judgement proper operation and maintenance of any systems installed to treat the discharge(s) which are the subject of this registration will ensure that all effluent limitations and other conditions in the General Permit for the Discharge of WTW are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based on my review of engineering reports and plans and specifications describing (1) the proposed discharges and (2) any proposed treatment system for the wastewaters to be discharged. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."
- (ii) For any WTW discharge which exists on the date of issuance of this general permit and which is required to be registered:
- "I certify that in my professional judgement all discharge(s) which are the subject of this registration comply with all conditions of the General Permit for the Discharge of WTW, including but not limited to all effluent limitations in Section 5(b) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will ensure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR Part 136, which samples were representative of the discharge(s) during standard operating conditions, were taken within the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5(c)(5) of the General Permit for the Discharge of WTW, and were analyzed for the parameters specified in Section 5(b) of such

general permit. In the case of discharges of WTW less than 5000 gallons per day maximum daily flow, this certification may be based on review of analyses from one effluent sample collected, preserved, handled, and analyzed as specified in the previous sentence. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(iii) In addition, for a discharge to a POTW:

"I certify that in my professional judgement all the requirements for discharges to a POTW in Sections 4 and 5 of this general permit have been met and the registrant is authorized to discharge to the POTW."

(L) Any person who or municipality which submits a registration under this general permit shall sign the registration and shall make the following certification:

"I certify under penalty of law that I have read and understand all conditions of the General Permit for the Discharge of WTW, that all requirements for authorization under this general permit are met for all discharges which are the subject of this registration, and all terms and conditions of this general permit are being met for all discharges which have been initiated and are the subject of this registration. This document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained in this registration is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements."

(d) *Where to Submit a Registration*

A registration shall be submitted to the following address:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127

For any discharge to a POTW, a certified copy of the registration shall also be sent to the POTW authority which will receive the discharge.

For any discharge to a surface water body within a coastal boundary, as defined in Section 22a-94 of the General Statutes of Connecticut, a certified copy of the registration shall also be sent to the Department of Agriculture, Aquaculture Division, P.O. Box 97, Milford, CT 06460.

(e) *Correction of Inaccuracies*

Within fifteen days after the date the registrant or permittee becomes aware of a change in any information in the registration or in any material provided in support thereof, or becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such registrant or permittee shall correct the inaccurate or misleading information, or supply the omitted information in writing to the Commissioner.

(f) *False Statements*

Any false statement in any information submitted in a registration or in support of a registration may be punishable as a criminal offense, under Section 22a-438 of the General Statutes or, in accordance with Section 22a-6, under Section 53a-157 of the General Statutes.

(g) *Additional Information*

The Commissioner may require a registrant to submit additional information which the Commissioner deems necessary to evaluate the consistency of the discharge of WTW with the criteria for authorization under this general permit.

(h) *Disapproval of Registration*

- (1) The Commissioner may disapprove a registration for the same reasons for which he may, under Section 22a-430, require an individual permit. Disapproval of a registration under this subdivision shall constitute notice that an individual permit must be obtained under Section 22a-430 and, as applicable, under Section 22a-32 of the General Statutes, before conducting any activity proposed in such registration.
- (2) The Commissioner may disapprove a registration if he determines that (a) said registration is insufficient, (b) more than thirty (30) days have elapsed since the Commissioner requested that the registrant submit additional information or the required registration fee, and (c) the registrant has not submitted such information or fee. A registration resubmitted after disapproval pursuant to this subdivision shall be accompanied by the registration fee required under Section 4(c)(1) of this general permit.

(i) *Transfer of Authorization*

Any authorization under this general permit shall be non-transferable.

Section 5. Permit Terms and Conditions

(a) *Treatment and Control Requirements; BMPs; Other Special Conditions*

- (1) WTW shall not be discharged to any open floor drain, floor trench, sump or drainage system which is designed or constructed to receive or which may receive chemical spillage or wastewaters not authorized by this general permit.
- (2) Lagoons used to treat or convey WTW shall be inspected weekly during operation of the treatment system for visible oil sheen, hydrocarbon odor, and chemical spills due to discharges other than WTW.
- (3) For any lagoon used to treat or convey WTW that is constructed after the effective date of this general permit, the minimum elevation of the top of the berm of the lagoon shall be constructed and maintained above the 100 year base flood elevation.
- (4) The following types of WTW shall *not* be discharged to a surface water:
 - (A) Facility and equipment cleaning rinsewaters containing detergents or surfactants;
 - (B) Laboratory wastewaters;
 - (C) Start-up wastewaters for WTW facilities or equipment containing detergents or surfactants initiated after the effective date of this General Permit.
- (5) WTW generated by the treatment of water supplies for industrial use shall not be discharged to the groundwaters of the state, unless such WTW is generated by the treatment of water from a public water supply.
- (6) For any discharge of WTW which has been initiated on or before the effective date of this general permit, the permittee shall comply with the following conditions as soon as possible, but in no event later than three years after the effective date of this general permit. For all other discharges of WTW, the permittee shall comply with the following conditions no later than the date the discharge is initiated.
 - (A) The following types of WTW shall be discharged *only* to a POTW and shall not be discharged to any surface water or to the ground water:
 - (i) Regeneration and backwash wastewaters from sodium chloride ion exchange units.
 - (ii) Activated carbon backwash and regeneration wastewaters for filters which treat for volatile organic compounds, except that initial start-up backwash conducted for the removal of loose carbon fines may be discharged to any surface water or groundwater provided such initial start-up backwash has been pretreated to remove solids in accordance with Section 5(b) of this general permit.

(iii) Other WTW's containing chemical additives which contain any substances identified in Appendix B, Tables II, and V, and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies, except those WTW discharges which do not exceed: (a) all effluent limits specified in Sections 5(b)(1) and 5(b)(2) of this general permit; or (b) if no such limit is specified in said Sections 5(b)(1) or 5(b)(2), the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.

(B) The following types of WTW shall not be discharged to a surface water without treatment or best management practices to ensure compliance with effluent limitations specified in Section 5(b)(1) and numerical water quality criteria for chemical substances listed in Appendix D of the Water Quality Standards:

(i) Facility and equipment cleaning rinsewaters containing *no* detergents or surfactants;

(ii) Water discharged from on-line analytical instruments;

(iii) Start-up wastewaters for new facilities or equipment containing *no* detergents or surfactants;

(iv) Designed emergency overflows of water, other than raw water, from any water treatment plant, unless best management practices have been implemented to minimize this type of discharge such as high level alarms, solenoid shut-off valves, or containment. For any existing water treatment plant with a designed emergency overflow to a surface water, the permittee shall submit a report to the Commissioner within one year of permit issuance detailing existing or proposed best management practices. Such report shall be submitted to the following address:

INDUSTRIAL PERMIT SECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE/PED
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127

(C) The following types of WTW may be discharged directly to a POTW without treatment; and shall be discharged to the surface water or ground water *only* after treatment for solids removal to meet the effluent limitations specified in Section 5(b)(1)(F) for total suspended solids:

(i) Clarifier tank sludge blowdown;

(ii) Green sand filter ion exchange regeneration wastewaters;

(iii) filter media backwash and regeneration wastewaters.

- (D) Clarifier tank sludge blowdown shall not be discharged to subsurface disposal systems.
- (E) For discharges to a surface water or to the ground water for which a registration is required to be submitted by Section 4(a) of this general permit except discharges which contain no chemicals, including but not limited to treatment chemicals used for taste/odor control, coagulants, corrosion control or disinfection, and except discharges from emergency overflows, the maximum daily flow of all discharges of WTW generated by a registrant on one site shall not exceed 1,000,000 gallons per day.
- (F) For discharges to a subsurface disposal system, the maximum daily flow of all discharges of WTW generated by a registrant on one site shall not exceed 50,000 gallons per day.
- (G) All lagoons used to treat or convey WTW and inlet and outlet structures, gates, valves, motors, pumps, and controls associated with such lagoons shall be designed and constructed to minimize short-circuiting of flow, vandalism and tampering.
- (H) Stormwater runoff shall not be discharged to any lagoons and beds which are used for the treatment of WTW, but may be discharged to lagoons or beds used to treat stormwater run-off and which are also used to hold emergency overflows of WTW.
- (I) Lagoon and beds used to treat WTW, and areas adjacent to such lagoons and beds, shall be graded to prevent stormwater runoff from discharging into them.
- (J) For all discharges of WTW to groundwater except those for which no registration is required to be submitted pursuant to Section 4(a) of this general permit, those WTW discharges to the groundwater which require submission of a registration, the following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well which is not downgradient and also not associated with this discharge:
 - (i) for potable water supply wells yielding less than 10 gallons per minute - 75 feet;
 - (ii) for potable water supply wells yielding 10 or more gallons per minute but less than 50 gallons per minute - 150 feet;
 - (iii) for potable water supply wells yielding more than 50 gallons per minute - 200 feet.

- (K) For discharges of WTW to the ground water which require submission of a registration, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet, unless a ground water monitoring program has been approved in writing by the Commissioner. The minimum separating distance between a disposal system and downgradient potable water supply well, if a ground water monitoring program has been approved in writing by the Commissioner, shall be 200 feet. For the purpose of this subparagraph, downgradient refers to groundwater gradient if it is known, or if no data indicating groundwater gradient is known, topographic gradient.
- (L) For discharges of WTW to the ground water, there shall be a minimum depth of 2 feet between the bottom of any lagoon or bed used to treat or convey WTW and any underlying bedrock surface, and for any lagoon constructed after the effective date of this general permit, at least 2 feet separation between the bottom of any such lagoon or bed and the seasonal high ground water table.
- (M) Discharges of WTW to the ground water shall not interfere with another subsurface disposal system and its treatment of wastewater, or render a drainfield or subsurface disposal system incapable of infiltration, or cause such drainfield or subsurface system to exceed its hydraulic capacity.

(b) *Effluent Limitations*

- (1) For discharges to a surface water:

- (A) Temperature

The temperature of the discharge shall not increase the temperature of the receiving water above 85°F for freshwaters, and 83°F for marine waters, nor shall the discharge raise the temperature of the receiving stream more than 4°F at any time, except for marine waters during the months of July, August, and September, during which time the discharge shall not raise the temperature of the receiving waters more than 1.5°F.

- (B) Salinity

Discharges of WTW to coastal waters shall not lower the salinity of the receiving water by more than 5 percent.

- (C) pH

The pH of the discharge shall not be less than 5.0 nor greater than 9.0 standard units at any time.

- (D) Appearance

Discharges of WTW shall not contain a visible oil sheen, visible discoloration, or foaming, or cause any such condition in the receiving water body.

(E) Chemical Limitations

Discharges of WTW to any surface water shall be analyzed for Total Copper, Total Zinc, Total Residual Chlorine and any additional substances, including but not limited to *inorganic chemicals, pesticides, organic chemicals* which have been detected within the previous twelve months in any sample analyzed in accordance with Section 19-13-B102 of the Regulations of Connecticut State Agencies, except any substance added to the finished water which substance is not used in treating the raw water or otherwise introduced directly or indirectly into the WTW, including but not limited to disinfectant, fluoride, and corrosion control chemicals. Discharges of WTW to any surface water shall also be analyzed for any substance the permittee has reason to believe could be present within the raw water supply at a concentration exceeding a Maximum Contaminant Level (MCL) as defined in Section 19-13-B102 of the Regulations of Connecticut State Agencies. No discharge of WTW to any surface water shall contain such substance in excess of any MCL. Samples shall be collected in accordance with the sample requirements set forth in Section 5(c)(5) of this general permit.

- (F) In addition, for all discharges to a surface water, the following parameters shall also be monitored and the concentration of such substances in the discharge shall not exceed the maximum concentrations listed in Table I:

Table I

Pollutant Parameter	Maximum Concentration
Total Aluminum	1.5 mg/l
Total Manganese	3.0 mg/l
Total Iron	3.0 mg/l
Total Dissolved Solids	1500.0 mg/l
Total Suspended Solids	20.0 mg/l
Total Settleable Solids	---- mg/l (no limit)

All discharges of WTW to surface water initiated after the effective date of this general permit shall not exceed the limits specified in Table II. Any WTW discharge initiated on or before the effective date of this general permit, the limits specified in Table II shall be met no later than three years after the issuance date of this permit.

Table II

Parameter	Instream Waste Concentration ⁽¹⁾			
	Reservoir	<1%	1% - 10%	>10%
Copper	0.217 mg/l	1.09 mg/l	0.11 mg/l	10.9 µg/l
Total Chlorine Residual	0.262 mg/l	0.90 mg/l	0.09 mg/l	9.0 µg/l
Zinc	0.557 mg/l	2.0 mg/l	0.28 mg/l	27.8 µg/l
Toxicity	LC ₅₀ >100%	LC ₅₀ >100%	LC ₅₀ >100%	NOAEL=100%

⁽¹⁾ The Instream Waste Concentration shall be calculated by dividing the maximum daily flow of the discharge by the sum of the maximum daily flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

(2) For discharges to ground water:

(A) Temperature

No temperature limitation.

(B) pH

The pH of the discharge shall not be less than 5.0 nor greater than 9.0 standard units at any time.

(C) Chemical Limitations

Discharges of WTW to any ground water shall be analyzed for those substances including, but not limited to: *inorganic chemicals, pesticides, organic chemicals* which have been detected within the last twelve month period as a result of sampling required under Section 19-13-B102 of the Public Health Code of the State of Connecticut as amended. Discharges of WTW to any ground water shall also be analyzed for any substance which can reasonably be expected to be present within the raw water supply at concentrations above any MCL. No discharge of WTW to ground water shall contain such inorganic chemicals, pesticides, organic chemicals in concentrations in excess of any MCL and such discharge of WTW shall conform to the ground water standards set forth in the Water Quality Standards and Classifications of the Connecticut Department of Energy and Environmental Protection. Pollutants shall be sampled in accordance with the sample requirements set forth in Section 5(c)(5) of this general permit.

- (D) In addition, for all discharges to any ground water, the following parameters shall also be monitored and shall not exceed the maximum concentrations listed below:

Pollutant Parameter	Maximum Concentration
Total Residual Chlorine	3.0 mg/l
Total Dissolved Solids	1500.0 mg/l
Total Aluminum	1.5 mg/l
Total Manganese	3.0 mg/l
Total Iron	3.0 mg/l

- (3) For discharges to a POTW:

- (A) Temperature

The temperature of the discharge shall not exceed 150°F at any time, or cause temperatures in excess of 104°F at the POTW.

- (B) pH

The pH of discharges of WTW shall not be less than 5.0 nor greater than 10.0 standard units at any time.

- (C) Chemical Limitations

Discharges of WTW to a POTW shall be analyzed for the following parameters, and shall not exceed the maximum concentrations listed below at any time:

Pollutant Parameter	Maximum Concentration
Total Settleable Solids	---- mg/l
Total Suspended Solids	---- mg/l
Total Residual Chlorine	---- mg/l
Total Aluminum	---- mg/l
Total Copper	---- mg/l
Total Manganese	---- mg/l
Total Zinc	---- mg/l
Total Iron	---- mg/l
*Total Volatile Organics	1.0 mg/l

- * Testing for total volatile organics shall be required for only those discharges for which there is reason to suspect their presence, such as activated carbon backwash and regeneration wastewaters for those filters which treat for volatile organic compounds.

(c) **Monitoring Requirements**

(1) Aquatic toxicity: Samples collected for determination of aquatic toxicity shall be tested using the NOAEL protocol specified in Section 22a-430-3(j)(7)(a) of the Regulations of Connecticut State Agencies. The following additional specifications apply:

- (A) Toxicity tests shall be initiated within 36 hours of sample collection.
- (B) Toxicity tests shall employ neonatal (less than 24 hours old) *Daphnia pulex* and juvenile (30 +/- 5 days old) *Pimephales promelas* as test species.
- (C) Toxicity tests shall be 48 hours in duration.
- (D) The permittee shall retain, for the period of time required by Section 22a-430-3(j)(9)(B) of the Regulations of Connecticut State Agencies, records of information necessary to verify the validity of aquatic toxicity test procedures, including but not limited to all records of organism mortality and environmental conditions noted during these tests.
- (E) Samples collected for determination of aquatic toxicity analysis shall also be analyzed for the chemical parameters listed in Section 5(b)(1), the results of which may be used to fulfill the requirement for chemical monitoring of effluent quality under this general permit.

(2) Chemical Analysis

(A) Chemical analysis to determine compliance with surface water effluent limits and conditions established in this general permit shall be performed using methods which have been approved by the U.S. Environmental Protection Agency in accordance with 40 CFR 136 and are capable of quantification of the parameter at the concentration present in the sample without sample concentration. Failure to use an analytical method capable of achieving the minimum analytical quantification levels specified during analysis of effluent samples shall constitute a permit violation.

Pollutant Parameter	Minimum Analytical Quantification Level
Total Copper	5.0 µg/l
Total Lead	5.0 µg/l
Total Nickel	5.0 µg/l
Total Zinc	5.0 µg/l
Total Aluminum	100.0 µg/l

(B) Chemical analysis to determine compliance with effluent limits and conditions for discharges to the groundwater or to a POTW shall be performed using the methods approved in accordance with 40 CFR 136

which are capable of achieving a limit of detection below the level established as an effluent limitation in Section 5(b) of this general permit.

- (C) For those discharges required to be tested for total volatile organics, the analysis required by this subsection shall be performed using EPA methods 8010 and 8020.
- (D) For discharges to ground water only, samples collected shall be prepared by settling of solids and filtration through a 0.45 uM filter prior to analysis.

(3) Monitoring Location

All wastewater samples shall be composed solely of WTW, prior to combination with wastewaters of any other type or with the receiving waters. For discharges to ground waters, samples shall be collected at the influent to the treatment system which directs the WTW into the ground waters, including but not limited to a lagoon or a subsurface drainfield.

(4) Monitoring Frequency

Monitoring to verify compliance with effluent limitations in Section 5(b) of this general permit shall be performed according to the following schedule:

- (A) For discharges to a surface water:

Monitoring Frequency			
Maximum Daily Flow (gallons per day)	Total Daily Flow	Aquatic Toxicity	Chemical Parameters
Less than 5,000	monthly	none	annually
5,000 - 49,999	monthly	annually	quarterly
≥50,000	twice per month	twice per year	monthly

- (i) In addition, except as provided in subdivision (ii) of this subparagraph, all surface water discharges, regardless of flow volume, shall on a weekly basis be monitored for pH, and total residual chlorine if chlorine is added prior to WTW generation or can be expected to be found in the discharge. If the discharge occurs less frequent than weekly, each discharge shall be monitored for pH and total residual chlorine.
- (ii) Monitoring shall only be for those parameters listed in Table I in Section 5(b)(1)(F), except that required to prepare the registration required by Section 4 of this general permit, pursuant to this subparagraph for any discharge to a surface water if the permittee certifies to the Commissioner in writing that the discharge does not contain any added

chemicals or byproducts thereof, including but not limited to chemicals used for algae control within a reservoir, coagulants used to aid in solids removal and disinfectants, corrosion control chemicals, or fluoride.

(B) For all discharges to ground water:

Monitoring Frequency		
Total Daily Flow	Aquatic Toxicity	Chemical Parameters
monthly	none	*twice per year

* The frequency of monitoring for chemical parameters may be reduced to annually, if the results of 3 consecutive tests document that all chemical parameters do not exceed the limitations specified in Section 5(b)(2) of this general permit.

(C) For discharges to a POTW:

Monitoring Frequency		
Maximum Daily Flow (gallons per day)	Total Daily Flow	Chemical Parameters
Less than 5,000	monthly	annually
5,000 - 49,999	monthly	quarterly
≥50,000	twice per month	monthly

(5) Sampling

(A) Samples collected for purposes of monitoring aquatic toxicity and chemical parameters shall be grab samples.

(B) For batch discharges of WTW to surface waters, ground waters, or to a POTW, at least two samples shall be taken at the frequency specified in Section 5(c)(4) of this general permit. One sample shall be taken during the first 10 percent of the time the discharge is expected to continue, and one sample shall be taken during the last 10 percent of the time the discharge is expected to continue.

(6) Representative Samples

All samples shall be representative of the discharge to assure compliance with effluent limitations. Any permittee who applies copper sulfate to reservoirs shall sample any surface water or POTW discharge authorized by this general permit when the discharge would be expected to have its highest concentration of copper.

(d) Reporting and Record Keeping Requirements

- (1) Except as provided below, or as otherwise specified by the Commissioner, all analytical results and other information required under this general permit shall not be required to be submitted to the Commissioner but instead shall be retained on-site or at the permittee's principal place of business in Connecticut, as required by Regulations of Connecticut State Agencies Section 22a-430-3(j)(9)(B), and shall be made available to the Commissioner, or the local POTW authority immediately upon request.
- (2) For all discharges of WTW, the permittee shall maintain records for review and inspection by the Department of Energy and Environmental Protection. Such records shall include, at a minimum, the information below:
 - (A) frequency of discharge, per day, per month, and per year;
 - (B) duration of discharge;
 - (C) daily solids discharged, in pounds per day in dry weight for each day in which solids monitoring is required for discharges to a POTW only;
 - (D) description of type of discharge, such as filter backwash, settling wastes, continuous, infrequent batch processing, or combined;
 - (E) for discharges to ground water, the name of the nearest watercourse downgradient from the site;
 - (F) a list of materials/chemicals used in treatment process (e.g. alum, polymer, etc.);
 - (G) a site plan at scale of 1"=100' or less showing location of all discharge points, topography, north arrow, bar scale, buildings, lagoons, watercourses, and wetlands.
 - (H) For each discharge, a detailed 8 1/2 X 11 inch flow diagram and plan showing all major treatment and discharge components. Identify and label each discharge by assigning consecutive numbers to each discharge beginning with 001.
 - (I) indicate whether discharge is on a public water supply watershed or aquifer as mapped to Level A standards (use level B aquifer maps if Level A aquifer maps are unavailable), as specified in Section 22a-354c of the General Statutes. If yes, indicate name of supply and approximate distance from discharge. If on an aquifer, indicate whether the site is on a direct or indirect recharge area;
- (3) For discharges to ground water the permittee shall maintain on site, plans and specifications of any lagoons or other subsurface drainage system. At a minimum, such plans and specifications shall include:

- (A) plan view and cross sections;
- (B) influent and effluent locations;
- (C) location of seasonal high ground-water elevation;
- (D) elevation of bedrock, if less than 10 feet from the bottom of the drainage system or other discharge point, otherwise indicate "greater than 10 feet".

(e) *Recording and Reporting of Violations*

- (1) If any analytical results or monitoring data collected under this general permit, or any other information, indicate that a violation of an effluent limitation or another condition of this general permit has occurred, such violation shall be recorded within twenty-four hours of receipt of such information in a log which contains at least the following information:
 - (A) the condition(s) or effluent limitation(s) violated;
 - (B) the analytical results and information demonstrating such violation(s);
 - (C) the cause of the violation(s), if known;
 - (D) period of noncompliance including exact dates and times;
 - (E) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;
 - (F) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and
 - (G) the name and title of the person recording the information and the date and time of such recording.
- (2) The permittee shall comply with the following requirements within the time frame specified, unless an alternative time frame is approved in writing by the Commissioner, if analytical results, monitoring data or other information indicate
 - (a) three simultaneous or consecutive violations of the same or different conditions applicable to any single discharge covered by this general permit (e.g. three effluent limitation violations involving the same effluent limitation, or one effluent limitation violation, one flow violation, and one recording violation of the same discharge),
 - (b) four violations of the same or different conditions of this general permit in any consecutive twelve month period, or
 - (c) the exceedance of any effluent limitation, other than that for pH, by more than two hundred percent, and for pH, by more than one standard unit:
 - (A) Within twenty days after the third simultaneous or consecutive violation of a specific discharge effluent limitation, or fourth annual violation, as applicable, or within ten days after the exceedance of any effluent limitation, other than that for pH, by more than two hundred percent, and for pH by

more than one standard unit, the permittee shall submit to the Commissioner a report prepared by a professional engineer licensed to practice in Connecticut. Such report shall contain at least the information required to be recorded under paragraph (1) of this subsection for each of the violations which led to the requirement for such report, and for each subsequent violation which occurred prior to the date the report was completed. Such report shall be submitted to the following address:

ENFORCEMENT SECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE/PED
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD CT 06106-5127

- (B) Within sixty days after the deadline for submitting the report specified in the preceding paragraph, the permittee shall submit to the Commissioner the following certification signed by a professional engineer licensed to practice in Connecticut:

"I certify that in my professional judgement all discharge(s) which are maintained at the facility referenced herein, and which are authorized by the General Permit for the Discharge of WTW comply with all conditions of said permit, including but not limited to all effluent limitations in Section 5(b) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will insure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136, which samples were representative of the discharge(s) during standard operating conditions, were taken within the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5(c)(5) of said general permit, and were analyzed for the parameters specified in Section 5(c)(1) and (2) of said general permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

- (C) For any discharge to a POTW, the Permittee shall notify the POTW authority of each violation and a copy of any report required to be submitted under this subsection shall also be sent to the POTW which receives the discharge.

Section 6. General Conditions

(a) *The permittee shall comply with the following Regulations of Connecticut State Agencies which are hereby incorporated into this general permit, as if fully set forth herein:*

(1) Section 22a-430-3:

Subsection (b) General - subparagraph (1)(D) and subdivisions (2), (3),(4) and (5)

Subsection (c) Inspection and Entry

Subsection (d) Effect of a Permit - subdivisions (1) and (4)

Subsection (e) Duty to Comply

Subsection (f) Proper Operation and Maintenance

Subsection (g) Sludge Disposal

Subsection (h) Duty to Mitigate

Subsection (i) Facility Modifications, Notification - subdivisions (1) and (4)

Subsection (j) Monitoring, Records and Reporting Requirements - subdivisions (1), (6),

(7), (8), (9) and (11) (except subparagraphs (9)(A)(2), and (9)(C))

Subsection (k) Bypass

Subsection (m) Effluent Limitation Violations

Subsection (n) Enforcement

Subsection (o) Resource Conservation

Subsection (p) Spill Prevention and Control

Subsection (q) Instrumentation, Alarms, Flow Recorders

Subsection (r) Equalization

(2) Section 22a-430-4:

Subsection (t) - Prohibitions

Subsection (p) - Revocation, Denial, Modification

Appendices

(b) *The permittee shall comply with the following additional terms and conditions:*

- (1) The permittee is authorized to discharge (a) pollutants in quantities and concentrations as specified in this general permit; and (b) any substances resulting from the processes or activities described in this general permit in concentrations and quantities which the Commissioner determines cannot reasonably be expected to cause pollution and will not adversely affect surface waters, ground waters, or the operation of a POTW. The Commissioner may seek an injunction or issue an order to prevent or abate pollution, and may seek criminal penalties against a permittee who willfully or with criminal negligence causes or threatens pollution.
- (2) Discharge of any substance which does not result from the processes or activities authorized by this general permit shall be considered a violation of this general permit unless it is authorized by an individual permit issued under Section 22a-430 of the General Statutes or another General Permit issued under Section 22a-430b of the General Statutes.
- (3) The permittee shall at all times continue to comply with the conditions for

authorization set forth in Section 3 of this general permit.

- (4) Nothing in this general permit shall relieve the registrant of other obligations under applicable federal, state and local law.
- (5) Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this general permit by the permittee shall be signed by the permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157 of the General Statutes, and in accordance with any other applicable statute."
- (6) The Commissioner reserves the right to make appropriate revisions to this general permit, in accordance with applicable law, in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be necessary to adequately protect human health and the environment.
- (7) The Commissioner may order summary suspension of this general permit in accordance with Section 4-182 of the General Statutes.

Section 7. Unauthorized Activities

Any person who or municipality which initiates, creates, originates or maintains a discharge of WTW into the waters of the state without authorization under this general permit, except those authorized by an individual permit issued under Section 22a-430 of the General Statutes, or an authorization as authorized by Public Act No. 93-428 of the General Statutes, is in violation of the General Statutes and is subject to injunction and penalties of up to \$25,000 per day per violation under Chapter 446k of the General Statutes.

Issued Date: March 15, 2016

Michael Sullivan /s/

Michael Sullivan
Deputy Commissioner

This is a true and accurate copy of the general permit executed on March 15, 2016 by the Department of Energy and Environmental Protection.