Connecticut
Department of Energy &
Environmental Protection

Comprehensive General Permit for Discharges to Surface and Ground Water

Permit No: CTC000000

Issuance Date: DATE
Effective Date: DATE
Expiration Date: DATE

The Comprehensive General Permit for Discharges to Surface and Ground Water is issued in accordance with Section 22a 430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and Section 402(b) of the Clean Water Act ("CWA"), as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer a NPDES permit program. Persons shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit.

This permit becomes effective on [To be determined date]. This permit and the authorization to discharge shall expire on [To be determined].

Issued: [To be determined]

_____
Emma Cimino
Deputy Commissioner

Comprehensive General Permit for Discharges to Surface and Ground Water

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Comprehensive General Permit for Discharges to Surface Water and Ground water

1. Authority

This general permit is issued under the authority of section 22a-430b of the Connecticut General Statutes ("CGS").

2. Authorization Under This General Permit

2.1. Eligible Activities & Discharges

This general permit authorizes the following discharges of wastewaters, as defined in this permit, to surface and ground waters of the state of Connecticut. Authorization is subject to the terms of this permit.

- Non-contact cooling
- Geothermal heat pump
- Water treatment
- Hydrostatic pressure testing of natural gas, petroleum tanks, and pipeline
- Fire suppression system testing
- Hydrant flushing
- Boiler blowdown
- Pressure washing

2.2. Requirements for Authorization

This general permit authorizes the activities listed in Section 2.1 of this general permit provided:

2.2.1. For those discharges requiring registration pursuant to Section 3.1.2 of this general permit, a completed registration including the applicable fee with respect to such activity has been filed with the Commissioner and the permittee has received a written Approval of Registration from the Commissioner.

2.2.2. Such wastewater is discharged to either a surface water or to ground water in accordance with Table 2.1 of this general permit identifying the water body classifications:

Table 2.1—Authorized Discharge Locations Based on Category of Discharge		
Category of Discharge	**Ground Water Classification**	**Surface Water Classification**
Non-Contact Cooling	All	All
Geothermal Heat Pump	All	All
Water Treatment	All	All
Hydrostatic Pressure Testing of Natural Gas and Petroleum Tanks/Pipelines	Not Authorized	A, SA, B, SB
Fire Suppression System Testing	All	All
Hydrant Flushing	All	All
Boiler Blowdown	All	Not Authorized
Pressure Washing	All	All

2.2.3. Coastal Area Management and Permitting

Such activity is consistent with all applicable goals and policies in section 22a-92 of the CGS and will not cause adverse impacts to coastal resources as defined in section 22a-93 of the CGS.

2.2.4. Endangered and Threatened Species

Such activity does not threaten the continued existence of any species listed pursuant to section 26-306 of the Connecticut General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species.

2.2.5. Aquifer Protection

Such activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the Connecticut General Statutes, complies with regulations adopted pursuant to section 22a-354i of the Connecticut General Statutes.

2.2.6. Conservation and Preservation Restrictions

Such activity, if located on or may affect property subject to a conservation or preservation restriction, pursuant to section 47-42d of the CGS, proof of written notice to the holder of such restriction of the proposed activity pursuant to this general permit or a letter from the holder of such restriction verifying that the proposed activity is in compliance with the terms of the

restriction shall be retained on site.

2.2.7. Wild and Scenic Rivers Act

Such activity must be consistent with the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) for those river components and tributaries which have been designated as Wild and Scenic by the United States Congress. Further, such activity must not have a direct and adverse effect on the values for which such river designation was established.

2.2.8. Antidegradation Standards

Such activity is consistent with the Antidegradation Standards of section 22a-426-8 of the Regulations of Connecticut State Agencies.

2.2.9. Discharges to Impaired Waters or Waters with Total Maximum Daily Loads

A discharge is not authorized to an impaired waterbody that is listed in the most recent Connecticut Integrated Water Quality Report pursuant to Clean Water Act section 303(d) and 305(b) unless the permittee provides to the Commissioner the following documentation demonstrating that the discharge is not expected to cause or contribute to an exceedance of the water quality standard(s) that caused the impairment:

2.2.9.1. For discharges of pollutants which cause or contribute to the impairment of a water body segment without an established Total Maximum Daily Load (TMDL), the permittee must provide data and other technical information to the Commissioner sufficient to demonstrate that the discharge of the pollutant identified as an indicator of the impairment will meet in-stream water quality standards and criteria at the point of discharge to the waterbody.

2.2.9.2. For discharges to waterbody segments impaired for Aquatic Life Uses, discharges shall not contain concentrations of any pollutants with a Water Quality Criteria (WQC) identified in Table 3 of section 22a-426-9 of the RCSA in concentrations greater than the more restrictive of the chronic aquatic life criteria or applicable human health criteria.

2.2.9.3. For discharges to waters with an established TMDL, the Commissioner must determine if there are sufficient allocations in the TMDL to allow the discharge. The Commissioner may authorize the discharge with additional permit conditions or compliance.

2.2.10. Prohibited Discharges

2.2.10.1 Discharges of polychlorinated biphenyl (PCB) compounds are prohibited.

2.2.10.2 Discharges of mercury are prohibited.

2.2.11. Other State and Local Authorization(s)

Such activity obtains all other state and/or local authorization(s) required for such a discharge.

2.3. Geographic Area

This general permit applies throughout the State of Connecticut.

2.4. Effective Date and Expiration Date of this General Permit

This general permit is effective on the date it is issued by the Commissioner and expires (5) five years after the issuance date. The general permit may be administratively continued in effect until the Department has reissued the permit.

2.5. Effective Date of Authorization

2.5.1. For those persons receiving automatic coverage, pursuant to Section 3.1.1 of this general permit, the effective date of authorization under this general permit coverage is the same as the effective date of the general permit or the date the subject discharge is initiated, whichever is later.

2.5.2. For those persons with discharges that are required to submit a registration and receive an approval of registration from the Commissioner (after the interim permit coverage has passed, see Section 3.1.3), pursuant to Section 3.1.2 of this general permit, the effective date of authorization of to discharge is the date the Commissioner issues an Approval of Registration.

2.6. Transition to and from an Individual Permit

No person shall operate or conduct an eligible activity authorized by both an individual permit and this general permit. The requirements for transitioning authorization are as follows:

2.6.1. Transition from an Individual Permit to Authorization under this General Permit**.**

If an activity meets the requirements of authorization of this general permit and such operation or activity is presently authorized by an individual permit, the permittee may seek a modification to the individual permit to exclude such operation or activity or if the operation or activity is the sole operation or activity authorized by such individual permit, the permittee shall surrender its permit in writing to the Commissioner with the submission of a Notice of Termination. In either event, such permittee's individual permit shall continue to apply and remain in effect until authorization of such operation or activity under this general permit takes effect.

2.6.2. Transition from Authorization under this General Permit to an Individual Permit.

If an activity or operation is authorized under this general permit and the Commissioner subsequently issues an individual permit for the same activity, then on the date any such individual permit is issued by the Commissioner, the authorization issued under this general permit shall automatically expire.

3. Registration Requirements

3.1. Who Must File a Registration

3.1.1. Discharges that Do Not Require a Registration

Any person or municipality that initiates, creates, originates, or maintains the following wastewater discharges, as defined in this general permit, is not required to submit a registration form to the Commissioner and permit coverage is automatic:

3.1.1.1 Non-contact cooling water discharges to ground water with a maximum daily flow f 5,000 gallons per day (gpd).

3.1.1.2 Geothermal heat pump water discharges to surface or ground water with a maximum daily flow of 5,000 gpd.

3.1.1.3 Water treatment

- Discharges to surface or ground water with a maximum daily flow of 500 gpd;
- Discharges of raw water to ground water or surface water;
- Discharges from pump leakage, sampling taps, water treatment plant water laboratory water, or on-line analytical instrumentation with a maximum daily flow of 500 gpd which are land applied to the ground and meet the permit terms and conditions;
- Discharges of water supply system tank and pipeline draining wastewater (including hydrostatic tests) which meet permit terms and conditions; and
- Discharges from well rehabilitation that comply with the Best Management Practices specified in this general permit.
- Discharges to surface or ground water of potable water system maintenance of tanks/pipelines with a maximum daily flow of 500,00 gpd .

3.1.1.4 Potable water system maintenance of tanks or pipelines discharges to surface or ground water.

3.1.1.5 Fire suppression system test discharges to ground water or surface water.

3.1.1.6 Hydrant flushing discharges to surface or ground water.

3.1.1.7 Boiler blowdown discharges to ground water with a maximum daily flow of 5,000 gpd.

3.1.1.8 Pressure washing discharges that do not contain chemical or biological additives to surface or ground water.

3.1.2. **Discharges Requiring Registration**

Any person or municipality that initiates, creates, originates, or maintains the following wastewater discharges, as defined in this general permit, must submit a complete registration form to the Commissioner, except as required in Section 3.1.1.

3.1.2.1 Non-contact cooling discharges to a surface or ground water with a maximum daily flow greater than or equal to 5,000 gpd.

3.1.2.2 Geothermal heat pump discharges to surface or ground water with a maximum daily flow greater than or equal to 5,000 gpd.

3.1.2.3 Water treatment discharges to a surface or ground water with a maximum daily flow greater than or equal to 500 gpd.

3.1.2.4 Hydrostatic pressure testing of natural gas, petroleum tanks, or pipeline discharges to surface or ground water.

An Approval of Registration is required to be obtained from the Commissioner prior to the discharge commencing**.**

3.1.3. Existing Discharges

Facilities with existing permit coverage authorized under the Comprehensive General Permit for Discharges to Surface Water and Ground Water, issued on April 1, 2023, are eligible for continued permit coverage under the general permit on an interim basis provided a complete registration is filed with the Commissioner on or before 90 calendar days after the issuance date of this general permit. Authorization to discharge under this general permit shall be terminated 91 days after the issuance date of the permit if the Permittee fails to re-register their existing discharges in accordance with the requirements of this general permit. The Commissioner will review and approve or reject registrations in writing.

3.2. Scope of Registration

3.2.1 A registrant shall submit one registration form encompassing all discharges at a single site for which the permittee seeks authorization under this general permit. Discharges taking place at more than one site may not be consolidated on one registration form. For a Public Water System, water storage tanks and pipelines that are part of the distribution network can be included in the registration for the associated water treatment facility.

3.2.2 If the source or activity generating the discharge for which a registration is required to be submitted under this general permit is owned by one person or municipality (the owner) 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 form required by this general permit and maintain compliance with the terms and conditions of this general permit.

3.3. Fees

3.3.1 A registration fee of $1250 for any person or $625 for any municipality shall be submitted with a completed registration form.

3.3.2 A registration shall not be deemed complete, and no discharge shall be authorized by this general permit unless the registration fee has been paid in full.

3.3.3 The registration fee shall be paid to the Department of Energy and Environmental Protection.

3.3.4 The registration fee is non-refundable.

3.3.5 A registration fee of $500 for any person and $250 for any municipality shall be submitted with a modified registration form.

Table 3.1—Registration and Fee Requirements (Note: This table is solely provided as a summary of the registration requirements)				
Discharge Category	**Discharge Location**	**Maximum Daily Flow (gpd)**	**Registration**	**Fee[1]**
Non-Contact Cooling	Surface Water	500,000	Yes	$1250
	Ground Water	< 5,000	No	NA
		≥ 5,000	Yes	$1250
Geothermal Heat Pump	Surface Water	500,000	Yes	$1250
	Ground Water	< 5,000	No	NA
		≥ 5,000	Yes	$1250
Water Treatment	Surface Water	2,000,000	Yes	$1250
	Ground Water	< 500	No	NA
		≥ 500	Yes	$1250
Hydrostatic Pressure Testing of Natural Gas/Petroleum Tanks and/or Pipelines	Surface or Ground Water	500,000	Yes	$1250
Fire Suppression System Testing	Surface or Ground Water	500,000	No	NA
Hydrant Flushing	Surface or Ground Water	500,000	No	NA
Boiler Blowdown	Ground Water	< 5,000	No	NA
Pressure Washing	Surface or Ground Water	500,000	No	NA

[1] Municipalities receive a 50% discount on fees.

3.4. Contents of Registration

A registration shall be filed on forms prescribed and provided by the Commissioner and shall include, but not be limited to, the following:

3.4.1. Permittee Information

3.4.1.1 Legal name, mailing address, telephone number, and e-mail address of the registrant. If the registrant is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name

as registered with the Connecticut Secretary of the State.

3.4.1.2 Legal name, mailing address, telephone number, and e-mail address of the owner of the property on which the subject activity and discharge(s) are to take place.

3.4.1.3 Legal name, mailing address, telephone number, and e-mail address of the registrant's attorney or other representative, if applicable.

3.4.1.4 Legal name, mailing address, telephone number, and e-mail address of any consultant(s) or engineer(s) retained by the registrant to prepare the registration or to design or construct the subject activity.

3.4.1.5 Location, facility and mailing address, and name of the site for which the registration is being submitted.

3.4.2. Discharge Information

3.4.2.1 Maximum daily total flow in gallons per day and the maximum instantaneous flow rate in gallons per minute for each discharge.

3.4.2.2 The method of flow measurement of each discharge (i.e. estimation, flow meter, etc.).

3.4.2.3 A description of the duration of each discharge (batch or continuous, hours per day).

3.4.2.4 An estimated date of when each discharge began or will begin.

3.4.2.5 A detailed description of the process or activity generating each discharge and the type(s) of wastewater to be discharged.

3.4.2.6 A list of the substances used or added to the wastewater, including but not limited to those substances for which effluent limits are specified in Section 4.0 of this general permit and those 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.

3.4.2.7 A detailed description of any wastewater treatment processes, such as neutralization, filtration, or precipitation of solids or metals, etc. which the registrant utilizes or will utilize to achieve compliance with any of the effluent limits specified in Section 4 of this general permit.

3.4.2.8 For each discharge outfall location:

3.4.2.8.1 Name of water body receiving the discharge.

3.4.2.8.2 The Water Quality Classification of the receiving surface water body, whether it is listed as impaired in the most recent Connecticut

Integrated Water Quality Report pursuant to Clean Water Act section 303(d) and 305(b), the cause of impairment, and name of TMDL, if applicable.

3.4.2.8.3 The latitude and longitude for each discharge point.

3.4.3. Monitoring Plan

For all discharges requiring monitoring, a Monitoring Plan must be submitted and, at a minimum include the information prescribed in Section 4.12 of this general permit.

3.4.4. Wastewater Screening

Screening analysis results shall be submitted on forms provided by the Commissioner with the registration form. Samples shall consist of representative grab samples.

3.4.4.1 For all discharges, an initial screening analysis shall be conducted prior to registering for authorization under this general permit and the results submitted with the registration to the Commissioner if any of the following criteria are met:

3.4.4.2 If any pollutant identified as an emerging contaminant, as defined in this permit is reasonably known to be present, to have been handled, stored, released, or disposed of at the site where the subject wastewater originates, the subject wastewater shall also be analyzed to determine the concentration of such emerging contaminants(s) using an approved 40 CFR 136 method or a method specified by the Commissioner.

3.4.4.3 If any pollutant may be toxic, hazardous, or detrimental to any use of the watercourse designated pursuant to Connecticut's Water Quality Standards into which such wastewater is or will be discharged, or having the potential to bioaccumulate, bioconcentrate, or adversely affect aquatic life.

3.4.4.4 If additives containing nitrogen or phosphorus are, will be or are believed present in the discharge, the sample shall be tested for total Kjeldahl nitrogen, nitrates, and total phosphorus;

3.4.4.5 For existing water treatment plant wastewater, non-contact cooling water, and boiler blow down discharges to surface water, one (1) screening analysis will be conducted for pollutants believed present in the discharge prior to wastewater treatment and the results submitted with the registration form.

3.4.4.3 If the Commissioner requests sampling in writing for parameters of concern.

3.4.5. Supporting Documents

Detailed process flow line diagram of all wastewater treatment system(s) that clearly identifies the

following:

- intake source(s) with volumes of water in gallons per day;
- all treatment units,
- all points of chemical addition to all treatment units;
- discharge serial numbers (DSNs)/outfall identification,
- water balance, and
- sample and flow meter locations.

3.4.6. Professional Certifications

3.4.6.1 Qualified Professional: The registration must include a written certification which, at a minimum, complies with the following requirements:

3.4.6.1.1 Such certification was signed by a Qualified Professional as defined in this general permit;

3.4.6.1.2 Such certification is not the subject of an audit as described under section 22a-430b of the Connecticut General Statutes;

3.4.6.1.3 The Qualified Professional signing the certification has, at a minimum, completely and thoroughly reviewed this general permit and the following regarding the discharges to be authorized under this general permit: (i) all registration information provided in accordance with Section 3.4 of this general permit, (ii) the facility, based on a site inspection, (iii) compliance records, (iv) all wastewater collection, treatment systems, and monitoring equipment, including any plans and specifications, operating records and any Department approvals required for such systems.

3.4.6.1.4 The Qualified Professional signing the certification has made an affirmative determination, based on the review described in Section 3.4.6.1.3 of this general permit, that any proposed treatment or Best Management Practices are adequate to assure that the activity to be authorized under this general permit will comply with the terms and conditions of such general permit and all wastewater collection and treatment systems and monitoring equipment: (i) have been designed and installed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable, (ii) will function properly as designed based on visual inspection, compliance and operating records, and (iii) are adequate to ensure compliance with the terms and conditions of this general permit.

3.4.6.1.5 Such Qualified Professional certifies, provided it is true and accurate, to the following statement:

"I hereby certify that I am a Qualified Professional as defined in the Comprehensive General Permit for Discharges to Surface Water and Ground Water. I am making this certification in connection with a registration under such general permit, submitted to the Commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I have personally examined and am familiar with the information that provides the basis for

this certification, including but not limited to all information described in Section 3.4.6.1.3 of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination required in accordance with Section 3.4.6.1.4 of this general permit and that my signing this certification constitutes conclusive evidence of my having made such affirmative determination. I understand that this certification may be subject to an audit by the Commissioner in accordance with section 22a-430b of the Connecticut General Statutes, and I agree to cooperate with the Commissioner should such an audit be required, including, but not limited to providing information as may be requested in writing by the Commissioner in connection with any such audit. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

3.4.6.2 Certification Requirements for Permittee and Registration Preparer

The permittee and any other individual or individuals responsible for preparing the registration submits to the Commissioner a written certification which, at a minimum, complies with the following requirements:

3.4.6.2.1 The permittee and any other individual or individuals responsible for preparing the registration and signing the certification has completely and thoroughly reviewed, at a minimum, this general permit and the following regarding the activities to be covered under such general permit: (i) all registration information provided in accordance with Section 3.4 of such general permit, (ii) the facility, based on a visual site inspection, (iii) compliance records, (iv) all wastewater collection and treatment systems and monitoring equipment, including any plans and specifications, operating records and any Department approvals regarding such wastewater collection and treatment systems and monitoring equipment.

3.4.6.2.2 The permittee has, based on the review described in Section 3.4.6.2.1 of this general permit, made an affirmative determination to: (i) comply with the terms and conditions of this general permit; (ii) maintain compliance with all plans and documents prepared pursuant to this general permit, and (iii) properly operate and maintain all wastewater collection and treatment systems and monitoring equipment in compliance with the terms and conditions of this general permit to protect the waters of the state from pollution.

3.4.6.2.3 Such permittee certifies to the following statement:

"I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the Commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY] and that such activity is eligible for authorization under

such permit. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the Commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3.4.6.2.1 of such general permit, and, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination required in accordance with Section 3.4.6.2.2 of this general permit and that my signing this certification constitutes conclusive evidence of my having made such affirmative determination.

I understand that the registration filed in connection with such general permit may be denied, revoked or suspended for engaging in professional misconduct, including but not limited to the submission of false or misleading information, or making a false or inaccurate certification. I understand that the certification made pursuant to Section 3.4.6.2 of this general permit may be subject to an audit by the Commissioner in accordance with section 22a-430b of the Connecticut General Statutes, and that I will be required to provide additional information as may be requested in writing by the Commissioner in connection with such audit, and the registration filed in connection with such general permit may be denied, revoked or suspended as a result of such audit. As part of such audit, I understand the Commissioner may require that any information prepared in accordance with this general permit be independently certified by a Professional Engineer in accordance with this general permit and that such independent certification shall be at the registrant's expense. I understand that the reasonable cost of any such audit that reveals that a false certification was submitted to the Commissioner may be charged to the permittee for this general permit for which such certification was made. I also understand that knowingly making any false statement in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

3.4.6.2.4 Any other individual or individuals responsible for preparing the registration certifies to the following statement:

"I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the Commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY] and that such activity is eligible for authorization under such permit. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the Commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3.4.6.2.1 of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based

is true, accurate and complete to the best of my knowledge and belief. I understand that the registration filed in connection with such general permit may be denied, revoked or suspended for engaging in professional misconduct, including but not limited to the submission of false or misleading information, or making a false or inaccurate certification. I understand that knowingly making any false statement in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

3.4.7. A completed Connecticut DEEP NetDMR Subscriber Agreement.

3.4.8. Category Specific Registration Requirements

3.4.8.1 Non-Contact Cooling

3.4.8.1.1 Identification and name of the source water used for cooling water.

3.4.8.1.2 Identify all known source(s) of contamination in the source water.

3.4.8.1.3 For existing discharges, a table summarizing the last two years of monitoring data including flow, temperature, and aquatic toxicity testing results including chemical parameters in a concise format.

3.4.8.1.4 The Monitoring Plan required in Section 3.4.3 of this general permit must include the sampling procedures and locations for instream sampling.

3.4.8.2 Water Treatment

3.4.8.2.1 A list including the address of all water storage tanks associated with that facility.

3.4.8.2.2 An 8 ½" by 11" site map identifying the location of wastewater treatment facility and discharge point locations.

3.4.8.2.3 For each discharge, whether the discharge contains residual chlorine;

3.4.8.2.4 For existing discharges, a table summarizing last 2 years of monitoring data including flow, and aquatic toxicity testing results including chemical parameters in a concise format.

3.4.8.2.5 Plans and specifications for the treatment system of any new drinking water treatment plant discharge generated from the backwash of filtration, reverse osmosis, oxidation/filtration, or ion exchange units provided the discharge is greater than 500 gallons per day.

3.4.8.2.6 Residuals Management Plan
For water treatment plants generating a solid or semi-solid residual removed

during the treatment process, a Residuals Management Plan must be developed and provided with the registration which includes the following:

3.4.8.2.6.1 The specific types of residuals produced (e.g. clarification process waste or filter backwash waste) and the average solids content for each.

3.4.8.2.6.2 The analytical results of a representative sample of the residuals generated and removed during the treatment process. The chemical analysis will include the parameters listed below and the concentration and percent solids shall be reported. The following parameters must be sampled:

- Arsenic, total
- Barium, total
- Cadmium, total
- Chromium, total
- Copper, total,
- Lead, total
- Mercury
- Selenium, total
- Silver, total

3.4.8.2.6.3 A summary of the operation and maintenance plans for any lagoons, drying beds, etc., a description of where the solid material will be placed on and off site, stored, and disposed of. The Plan will include the best management practices and techniques used to prevent the solids from entering waters of the state.

3.4.8.3 Hydrostatic Pressure Testing of Natural Gas and Petroleum Tanks and/or Pipelines Wastewater

3.4.8.3.1 Description of the type of material or product in the tank or pipeline.

3.5. Additional Information

The Commissioner may require an applicant, registrant or permittee to submit additional information, which the Commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

3.6. Where to File a Registration

3.6.1. A complete registration shall be filed with the Commissioner at the following address:

Note: CT DEEP is actively working on an updated application intake platform and the submittal address may change in the final permit.

Central Permit Processing Unit
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

3.7. Action by Commissioner

3.7.1. Application & Permit Rejection, Denial, or Revocation

3.7.1.1. The Commissioner may reject, deny or revoke permit coverage without prejudice if it is determined more than seven (7) calendar days have elapsed since the Commissioner requested the permittee submit additional information to determine eligibility for permit coverage or authorization to discharge under this general permit.

3.7.1.2. The Commissioner may reject, deny or terminate permit coverage if it is found that the subject activity or subsequent discharges are inconsistent with the requirements for authorization under Section 2 of this general permit, or for any other reason provided by law.

3.7.1.3. Denial of permit coverage under this subsection shall constitute notice to the permittee that the subject activity or subsequent discharge may not lawfully be conducted or maintained without the issuance of an individual permit in accordance with section 22a-430 of RCSA.

3.7.1.4. Rejection, denial or termination of an authorization of coverage shall be in writing from the Commissioner.

3.7.2. Approval with Conditions

The Commissioner may approve a registration with reasonable permit conditions. If the Commissioner approves a registration with conditions, the permittee shall be bound by such conditions as if they are part of this general permit.

3.8. Modifications

3.8.1. Discharge or activity modification

The permittee shall notify the Commissioner with the submittal of a Modified Registration, at least thirty (30) calendar days prior to any expansion, alteration, or modification that may result in (1) a change to the nature of the activity generating the discharge (2) the introduction of a new source of discharge; (3)

the introduction of a new pollutant that was not present in the discharge at the time of registration; (4) an increase in the maximum daily flow, or (5) a relocation of the discharge to a different receiving waterbody. Discharges or activities associated with such modifications may not be discharged without prior written approval from the Commissioner in the form of a Modified Approval of Registration.

A Modified Registration must, at a minimum, contain:

3.8.1.1 The information required in Section 3.4.1 and 3.4.2 of this general permit.

3.8.1.2 A detailed description of the proposed modification(s) and how it is expected to affect the authorized discharge(s). A timeline for the modifications and expected completion of the proposed changes.

3.8.1.3 For existing activities that required a qualified professional certification as part of their original registration pursuant to Section 3.4.6 of this general permit, a new certification signed by a qualified professional must be submitted. The new certification must confirm that the wastewater treatment system is still adequate to consistently meet the permit limits and conditions, as applicable.

3.8.2. Treatment system modification

This general permit authorizes the permittee to expand or alter the existing wastewater collection or treatment system to meet the permit limits and conditions. The permittee shall notify the Commissioner at least 30 days prior to expanding or significantly altering its wastewater collection or treatment system, or its method of operation. Treatment system modifications do not require further DEEP approval, unless determined by the Commissioner. Information provided in the modified registration shall be emailed to DEEP at DEEP.IndustrialWastewaterGeneralPermits@ct.gov. Clearly detail all modifications made and include the following information:

3.8.2.1 A detailed explanation of any changes made to or proposed for the existing wastewater collection or treatment system or its method of operation. Explain the need for implementing each change and the anticipated effects of those changes that will have on the authorized discharge(s).

3.8.2.2 For any material substitutions or additional new treatment chemical(s), identify all new substances that include, or may break down into, pollutants listed in Appendix B or D of section 22a-430-4 of the RCSA that can be expected to be present in the authorized discharge(s) as a result of the modification.

3.8.2.3 An updated treatment system line diagram.

3.8.2.4 For discharges that required a qualified professional certification be submitted as part of the original registration per Section 3.4.6 of this general permit, a new certification signed by a qualified professional must be submitted. The new certification must confirm the modified wastewater treatment system is adequate to consistently meet the permit limits and conditions, as applicable.

3.9. Termination of Discharge

For discharges that require the submittal of a registration form, a Notice of Termination form shall be submitted to the Commissioner on a prescribed form within 14 days of the cessation of the discharge. Failure to submit the Notice of Termination may result in an enforcement action.

Notices of Termination shall be electronically mailed to: DEEP.WaterPermittingEnforcement@ct.gov .

4. Conditions of This General Permit

The permittee must at all times continue to meet the requirements for authorization set forth in Section 2 of this general permit and assure that the discharge authorized by this general permit is conducted in accordance with the following permit terms and conditions:

4.1. Non-Contact Cooling and Geothermal Heat Pump Water Discharges to Surface Water

4.1.1. Permit Conditions

4.1.1.1 No discharge shall contain or cause in the receiving stream a visible oil sheen, floating solids, visible discoloration, or foaming.

4.1.1.2 No discharge shall cause acute or chronic toxicity in the receiving water.

4.1.1.3 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 by more than 1.5°F.

4.1.1.4 The wastewater 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.

4.1.1.5 Discharges authorized by this general permit may not contain any substances found in Appendix B, Tables II, III, and V and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies unless the concentration of those substances do not exceed: (a) all effluent limits specified in Section 4 of this general permit; or (b) if no such limit is specified, the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.

4.1.1.6 The maximum daily flow shall not exceed the maximum daily flow specified in the permit registration.

4.1.1.7 Water treatment chemicals containing chromium, copper, lead, zinc, tributyl tin or magnesium shall not be added to non-contact cooling water or geothermal heat pump

water.

4.1.2. Numeric Effluent Limits

4.1.2.1 A discharge of non-contact cooling water or geothermal heat pump water to surface water shall comply with the following permit conditions and limits in Tables 4.1.2.1 and 4.1.2.2 below.

Table 4.1.2.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Non-contact Cooling Water or Geothermal Heat Pump Water to Surface Water

Parameter	Limit	Unit	Minimum Level
Flow	500,000	gpd	not applicable
pH[1]	6.0 – 9.0	s.u.	not applicable
Aquatic toxicity, Daphnia, Pulex[2,3]	≥90	percent	not applicable
Aquatic toxicity, Pimephales promelas[2,3]	≥90	percent	not applicable
Aquatic toxicity, Mysidopsis bahia[2,3]	≥90	percent	not applicable
Aquatic toxicity, Menidia beryllina[2,3]	≥90	percent	not applicable
Total Petroleum Hydrocarbons	5.0	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Total Suspended Solids	20	mg/l	not applicable
Temperature	84	°F	not applicable

Footnotes:

[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

[2] The results of the aquatic toxicity tests should be reported as percent survival in an undiluted sample of the effluent.

[3] For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24-hours old) Daphnia pulex and juvenile (1-14 days old, with no greater than a 24-hour range in age) Pimephales promelas as test organisms. For salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) Mysidopsis bahia and juvenile (9-14 days old, with no greater than a 24-hour range in age) Menidia beryllina as test organisms.

Table 4.1.2.2. Instantaneous Maximum Effluent Limits for Discharges of Non-contact Cooling Water or Geothermal Heat Pump Water to Surface Water by Instream Waste Concentration									
Parameter	**Instream Waste Concentration (1)**								
	Reservoir & Lake	**0 to 5%**	**>5% to 20%**	**>20% to 40%**	**>40% to 70%**	**>70% to 100%**	**Inter-mittent Discharge**	**Units**	**Minimum Level (unit)**
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	0.020 mg/l
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	not applicable
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	0.005 mg/l
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	0.005 mg/l
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	0.010 mg/l
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	.050 mg/l

Footnotes:
[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow (7Q10) of the receiving stream and multiplying the result by 100.

4.1.3. Monitoring

The permittee shall monitor the discharge for the parameters in Tables 4.1.2.1 and 4.1.2.2. The frequency of parameter and aquatic toxicity monitoring shall be determined by the discharge flows as follows in Table 4.1.3:

Table 4.1.3. Non-contact Cooling Water or Geothermal Heat Pump Water Surface Water Discharge Parameter and Toxicity Monitoring Frequency and Reporting			
Permitted Maximum Daily Flow (gallons per day)	**Parameter Monitoring Frequency**	**Aquatic Toxicity Monitoring Frequency**	**Submittal of Information[1]**
0 to 500	No Monitoring	No Monitoring	Not Applicable
501 to 5,000	Annually	No Monitoring	Not Applicable
5,001 to 50,000	Quarterly	Semi-annually	Submit DMR
50,001 to 500,000	Monthly	Quarterly	Submit DMR

Footnotes:
[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analysis. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.1.3.1 Monitoring Location
All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.1.3.2 Sample Type
Samples collected for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.1.3.3 Ambient Temperature Monitoring for Non-contact Cooling Water Discharges to Surface Water

4.1.3.3.1 The permittee is required to monitor the discharge temperature weekly and the receiving waterbody temperature monthly. Waterbody monitoring shall be done at a one foot depth on a day when the facility is operating and on a day when the discharge temperature is monitored and reported. If the waterbody is less than two feet deep, monitor mid depth.

4.1.3.3.2 During each monitoring event the permittee shall measure the temperature of the receiving water body at one point upstream of the discharge and at another point a sufficient distance downstream of the discharge outfall to allow for initial mixing. The background and downstream in-waterbody temperature sample locations shall be described in the Monitoring Plan submitted with the registration.

4.1.3.3.3 If the discharge is into a lake, a pond, or tidally influenced waters, one background temperature measurement shall be taken from an area not expected to be impacted by the discharge. The background and downstream in-waterbody temperature sample locations shall be described in the monitoring plan submitted with the registration.

4.2. Non-Contact Cooling and Geothermal Heat Pump Discharges to Ground Water

4.2.1. Permit Conditions

4.2.1.1 A discharge of non-contact cooling water or geothermal heat pump water to ground water shall be derived solely from once-through heat exchange systems or condensate which does not receive chemical additions of any kind and which uses on-site uncontaminated ground water, public water supply, or surface water as source water.

4.2.1.2 Ground water contaminated as a result of industrial or commercial activity including but not limited to those substances listed in Appendix B, Tables II, III, and V, and Appendix D of section 22a-430-4 of the Regulations of Connecticut State Agencies shall not be used as a source water unless a completed registration has been filed with the Commissioner and the registrant has received, an approval in writing from the Commissioner.

4.2.1.3 Water treatment chemicals containing chromium, copper, lead, zinc, tributyl tin or magnesium shall not be added to non-contact cooling water or geothermal heat pump water.

4.2.1.4 The following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well:

Table 4.4.2.1 – Minimum Horizontal Separating Distances

Item	Separating Distance (feet)
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.2.1.5 For discharges to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any potable water supply well shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient.

4.2.2. Numeric Effluent Limits

4.2.2.1 A discharge of non-contact cooling water or geothermal heat pump water land applied to the ground, to a subsurface disposal system, or an infiltration basin shall comply with the following limits in Table 4.2.2.1 below:

Table 4.2.2.1 — Maximum Effluent Limits for Discharges of Non-contact Cooling Water or Geothermal Heat Pump Water to Ground Water

Parameter	Maximum Limit	Unit	Minimum Level (unit)
Flow	500,000	gpd	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Lead, total	Monitor	mg/l	0.005 mg/l
Aluminum, total	1.5	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Manganese, total	3.0	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Temperature	Monitor	°F	not applicable
Zinc, total	Monitor	mg/l	0.010 mg/l

4.2.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.2.2.1. The frequency of parameter monitoring shall be determined by flow as follows in Table 4.2.3:

Table 4.2.3. Non-contact Cooling Water or Geothermal Heat Pump Water Ground Water Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	Not Applicable
501 to 5,000	Annually	Retain
5,001 to 50,000	Quarterly	Submit DMR
50,001 to 500,000	Monthly	Submit DMR

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.2.3.1 Monitoring Location

All samples shall be representative of the waste stream and from a location prior to comingling with any other waste stream and prior to entering the applicable ground water.

4.2.3.2 Sample Type

Samples collected for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.3. Water Treatment Plant Wastewater Discharges to Surface Water

4.3.1. The discharge(s) of the following types of drinking water treatment plant wastewater are prohibited to surface water:

4.3.1.1 Facility and equipment cleaning rinsewaters containing detergents or surfactants.

4.3.1.2 Water treatment plant laboratory wastewaters.

4.3.1.3 Start-up wastewaters from water treatment plant facilities which contain detergents or surfactants.

4.3.1.4 Regeneration and backwash wastewaters from sodium chloride ion exchange units.

4.3.1.5 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 ground water provided such initial start-up backwash has been pretreated to remove solids.

4.3.2. Permit Conditions

4.3.2.1 No discharge shall contain or cause in the receiving stream a visible oil sheen, floating solids, visible discoloration, or foaming.

4.3.2.2 No discharge shall cause acute or chronic toxicity in the receiving water body.

4.3.2.3 The temperature of the discharge shall not increase the temperature of the receiving water above 85^{o}F for freshwaters and 83^{o}F for marine waters, nor shall the discharge raise the temperature of the receiving stream more than 4^{o}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 by more than 1.5^{o}F.

4.3.2.4 The wastewater 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.

4.3.2.5 Discharges authorized by this general permit may not contain any substances found in Appendix B, Tables II, III, and V and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies unless the concentration of those substances do not exceed: (a) all effluent limits specified in Section 4 of this general permit; or (b) if no such limit is specified, the most restrictive aquatic life or human health criteria

listed in Appendix D of the Water Quality Standards.

4.3.2.6 The maximum daily flow shall not exceed the maximum daily flow specified in the permit registration.

4.3.2.7 The maximum daily discharge limit for water treatment wastewater to surface water under this general permit is 2,000,000 gallons per day.

4.3.2.8 The following types of water treatment plant wastewater shall be discharged to the surface water only after treatment for solids removal designed to meet the 20.0 mg/L effluent limit specified in Section 4.3.3 for total suspended solids:

- Clarifier tank sludge blowdown;
- Greensand filter ion exchange regeneration wastewaters; or
- Filter media backwash and regeneration wastewaters.

4.3.2.9 Discharges from potable water tank or pipeline draining to surface water associated with hydrostatic testing, repair or maintenance, inspection, or new pipeline installation shall comply with the following:

4.3.2.9.1 Potable water storage tanks should be drained or pumped to the water supply system to the extent possible before draining. Residual solids in the tank bottom should be removed or controlled to minimize turbidity in the discharge.

4.3.2.9.2 The discharge shall be provided with controls such as check dams or temporary basins to prevent erosion, sedimentation, visible discoloration and foaming of the receiving water body and to dissipate energy prior to discharge to mitigate scouring of the streambed and adverse impacts.

4.3.2.9.3 Samples shall be taken from the first 10% and last 10% of the discharge from draining potable water storage tanks and analyzed separately. Such samples shall be analyzed for pH, total suspended solids, total copper, total zinc, total iron, and total residual chlorine. A record shall be kept of the discharge date, location, estimated flow, and total residual chlorine concentration. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.3.2.9.4 Water from potable water supply pipeline draining shall only be monitored for total residual chlorine. A record shall be kept of the discharge date, location, estimated flow, and total residual chlorine concentration. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.3.2.9.6 No discharge of water treatment wastewater to surface water shall contain substances in excess of any maximum contaminant level, as defined in this general permit, or water quality standard for any substance which can reasonably be expected to be present within the raw water supply.

4.3.3. Numeric Effluent Limits

4.3.3.1 A discharge of water treatment wastewater to surface water shall comply with the following limits in Tables 4.3.3.1 and 4.3.3.2 below.

Table 4.3.3.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Water Treatment Wastewater to Surface Water

Parameter	Limit	Unit	Minimum Level (unit)
Flow	2,000,000	gpd	not applicable
pH[1]	6.0 – 9.0	S.U.	not applicable
Aquatic toxicity, Daphnia, Pulex[2,3]	≥90	percent	not applicable
Aquatic toxicity, Pimephales promelas[2,3]	≥90	percent	not applicable
Aquatic toxicity, Mysidopsis bahia[2,3]	≥90	percent	not applicable
Aquatic toxicity, Menidia beryllina[2,3]	≥90	percent	not applicable
Total Petroleum Hydrocarbons	5.0 mg/l	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Total Suspended Solids	20 mg/l	mg/l	not applicable
Total Dissolved Solids	Monitor	mg/l	not applicable

Footnotes:

[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

[2] The results of the aquatic toxicity tests should be reported as percent survival in an undiluted sample of the effluent.

[3] For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24-hours old) Daphnia pulex and juvenile (1-14 days old, with no greater than a 24-hour range in age) Pimephales promelas as test organisms. For salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) Mysidopsis bahia and juvenile (9-14 days old, with no greater than a 24-hour range in age) Menidia beryllina as test organisms.

Table 4.3.3.2. Instantaneous Maximum Effluent Limits for Discharges of Water Treatment Wastewater to Surface Water by Instream Waste Concentration									
Parameter	**Instream Waste Concentration [(1)]**								
	Reservoir & Lake	**0 to 5%**	**>5% to 20%**	**>20% to 40%**	**>40% to 70%**	**>70% to 100%**	**Inter-mittent Discharge**	**Units**	**Minimum Level (unit)**
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	0.01 mg/l
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	not applicable
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	0.005 mg/l
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	0.005 mg//l
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	0.01 mg/l
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	0.020 mg/l

Footnotes:

[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow (7Q10) of the receiving stream and multiplying the result by 100.

4.3.4. Monitoring

The permittee shall monitor the discharge for the parameters in Tables 4.3.3.1 and 4.3.3.2. The frequency of parameter and aquatic toxicity monitoring shall be determined by the discharge flow as follows in Table 4.3.4.1:

Table 4.3.4.1 —Water Treatment Wastewater Discharge to Surface Water Discharge Parameter and Toxicity Monitoring Frequency and Reporting			
Permitted Maximum Daily Flow (gallons per day)	**Parameter Monitoring Frequency**	**Aquatic Toxicity Monitoring Frequency**	**Submittal of Information[1]**
0 to 500	No Monitoring	No Monitoring	Not Applicable
501 to 5,000	Annually	Annually	Retain
5,001 to 50,000	Quarterly	Semi-annually	Submit DMR
50,001 to 2,000,000	Monthly	Semi-annually	Submit DMR

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.3.4.1 Monitoring Location
All wastewater samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.3.4.2 Sample Type
Samples collected for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.4. Water Treatment Wastewater Discharges to Ground Water

4.4.1. The discharge(s) of the following types of water treatment wastewater are prohibited to ground water:

4.4.1.1 Facility and equipment cleaning rinsewaters containing detergents or surfactants.

4.4.1.2 Water treatment laboratory wastewater or on-line analytical instrumentation to which chemicals are added that contain any substances identified in Appendix B, Tables II, III, and V, and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies, at concentrations that may be toxic, hazardous, or detrimental to any designated use of the groundwater into which such wastewater will be discharged pursuant to Connecticut's Water Quality with a maximum daily flow greater than 500 gpd.

4.4.1.3 Wastewater facilities which contain detergents or surfactants.

4.4.1.4 Regeneration and backwash wastewaters from sodium chloride ion exchange units.

4.4.1.5 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 ground water provided such initial start-up backwash has been pretreated to remove solids.

4.4.1.6 Clarifier tank sludge blowdown shall not be discharged to subsurface disposal systems.

4.4.2. Permit Conditions

4.4.2.1 For discharges to a subsurface disposal system, the maximum daily flow of all discharges of water treatment wastewater generated by a registrant on one site shall not exceed 50,000 gallons per day.

4.4.2.2 The following types of drinking water treatment plant wastewater shall be discharged to the ground water *only* after treatment for solids removal designed to meet the 20.0 mg/l effluent limit specified in Section 4.4.3 for total suspended solids:

- Clarifier tank sludge blowdown;
- Greensand filter ion exchange regeneration wastewaters; or
- Filter media backwash and regeneration wastewaters.

4.4.2.3 For any lagoon constructed, installed, modified or expanded after May 1, 1995, that is used to treat or convey water treatment wastewater, the minimum elevation of the top of the berm of the lagoon shall be constructed and maintained above the 100-

year base flood elevation.

4.4.2.4 Uncontaminated stormwater runoff shall not be discharged to any wastewater treatment lagoons or beds

4.4.2.5 For all discharges of water treatment wastewater to ground water, 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:

Table 4.4.2.5 – Minimum Horizontal Separating Distances

Item	Separating Distance (feet)
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.4.2.6 For discharges of water treatment wastewater to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well, not used as a source water well for the facility, shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient.

4.4.2.7 For discharges of water treatment wastewater to a subsurface disposal system, there shall be a minimum depth of 2 feet between the bottom of any lagoon or bed used to treat drinking water treatment plant wastewater and any underlying bedrock surface, and at least 2 feet separation between the bottom of any such lagoon or bed and the seasonal high ground water table. This distance can be reduced to 1 foot for treatment of low flow drinking water treatment plant wastewater unless the source water requires treatment for pathogen removal or emerging contaminants, in which case such separation distance shall be a minimum of 2 feet.

4.4.2.8 Discharges of water treatment wastewater land applied to the ground or to a subsurface disposal system shall not interfere with another subsurface disposal system (permitted in accordance with section 19a-36 or 22a-430 of the Connecticut General Statutes and the regulations adopted thereunder) and its treatment of wastewater, or render a drain field or subsurface disposal system incapable of infiltration, or cause

such drain field or subsurface system to exceed its hydraulic capacity. Permittees treating low flow water treatment wastewater should consult the local Director of Health if soil or ground water conditions provide uncertainty about placement of the water treatment wastewater dispersal structure.

4.4.2.9 For discharges of low flow drinking water treatment plant wastewater, the water treatment wastewater dispersal structure shall have a storage volume that is at least one and a half (1.5) times the volume of the maximum daily discharge of low flow water treatment wastewater.

4.4.2.10 Discharges from potable water tank or pipeline draining to *ground water* associated with hydrostatic testing, repair or maintenance, inspection, or new pipeline installation shall comply with the following:

4.4.2.10.1 Potable water storage tanks should be drained or pumped to the water supply system to the extent possible before draining. Residual solids in the tank bottom should be removed or controlled to minimize turbidity in the discharge.

4.4.2.10.2 Erosion and sediment controls shall be utilized when necessary, and structural practices must be implemented to divert flows away from exposed soils, retain the discharges where they will infiltrate the ground, and otherwise limit the discharge of pollutants from the site into surface waters. All steps must to be taken to avoid land application to the ground when the ground surface is frozen.

4.4.2.10.3 A record shall be kept of the discharge date, location, estimated flow. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.4.2.11 Discharges of Well Rehabilitation Wastewaters shall comply with the following:

4.4.2.11.1 Any substance used for the purpose of well rehabilitation has been approved for such use by the Connecticut Department of Public Health.

4.4.2.11.2 All water recovered during the initial recovery of well rehabilitation wastewater shall, to the extent practical, be collected for off-site disposal at either a licensed waste facility, a POTW that has been approved by the Commissioner to accept over-the-road wastewater, or for disposal to a sanitary sewer under the General Permit for Discharges from Miscellaneous Industrial Users.

4.4.2.11.3 Final well pump-out, including yield tests and disinfection shall be treated for the neutralization of chlorine to a concentration of 3.0 mg/L or less and, to the extent practical, be land applied to the ground surface and not enter a surface water body.

4.4.3. Numeric Effluent Limits

4.4.3.1 A discharge of water treatment wastewater land applied to the ground, to a

subsurface disposal system, or an infiltration basin shall comply with the following limits in Table 4.4.3.1 below:

Table 4.4.3.1 — Maximum Effluent Limits for Discharges of Water Treatment Wastewater to Ground Water

Parameter[1]	Maximum Limit	Unit	Minimum Level (unit)
Flow	500,000	gpd	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Lead, total	Monitor	mg/l	0.005 mg/l
Lead, dissolved[1]	Monitor	mg/l	0.005 mg/l
Aluminum, total	1.5	mg/l	not applicable
Aluminum, dissolved[1]	Monitor	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Iron, dissolved[1]	Monitor	mg/l	0.040 mg/l
Manganese, total	3.0	mg/l	not applicable
Manganese, dissolved[1]	Monitor	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Copper, dissolved[1]	Monitor	mg/l	0.005 mg/l
Zinc, total	Monitor	mg/l	0.010 mg/l
Zinc, dissolved[1]	Monitor	mg/l	0.010 mg/l
Temperature	Monitor	°F	not applicable

[1] Samples for dissolved metals shall be prepared by settling of solids and filtration through a 0.45 um filter prior to preservation and analysis.

Table 4.4.3.2 — Groundwater Monitoring Wells for Discharges of Water Treatment Wastewater to Ground Water			
Parameter[1]	**Maximum Limit**	**Unit**	**Minimum Level (unit)**
Depth to Groundwater	Monitor	feet	not applicable
pH	Monitor	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	Monitor	mg/l	not applicable
Specific Conductivity	Monitor	µmhos/cm	not applicable
Escherichia coli	Monitor	#/100mL	not applicable
Nitrate-Nitrogen	Monitor	mg/l	not applicable
Phosphorus, total	Monitor	mg/l	not applicable
Lead, total	Monitor	mg/l	0.005 mg/l
Aluminum, total	Monitor	mg/l	not applicable
Iron, total	Monitor	mg/l	0.040 mg/l
Manganese, total	Monitor	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Zinc, total	Monitor	mg/l	0.01 mg/l

4.4.4. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.4.3.1 at the frequency of parameter monitoring determined by discharge flow as follows in Table 4.4.4.

Table 4.4.4 —Water Treatment Discharge to Ground Water Monitoring Frequency and Reporting		
Permitted Maximum Daily Flow (gallons per day)	**Parameter Monitoring Frequency**	**Submittal of Information[1]**
0 to 500	No Sampling Required	Not Applicable
501 to 5,000	Annually	Retain
5,001 to 50,000	Semi-Annually	Submit DMR
50,001 to 500,000	Quarterly	Submit DMR

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request

4.4.4.1 Monitoring Location
All samples shall be representative of the wastewater discharge. The sample shall be collected at the influent to the treatment system which directs the wastewater into the groundwaters, including but not limited to a lagoon, infiltration basin, subsurface disposal system, drain field, or other treatment unit that allows infiltration into ground water.

4.4.4.2 Sample Type
Samples collected for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples, unless otherwise specified.

4.4.4.3 Ground Water Monitoring Well Compliance Schedule and Monitoring.

4.4.4.3.1 Within 36 months of the effective date of this general permit, permittees who discharge more than 50,000 gpd of water treatment wastewater must submit a plan for the installation of monitoring wells to assist in the evaluation of ground water quality. Well design and installation must be in accordance with the EPA Guidance Document titled "Design and Installation of Monitoring Wells," document number SESDGUID-101-RO, effective February 18, 2018, unless an alternative methodology is approved in writing by the Commissioner. The plan should include a potentiometric surface map to determine the location of at least one (1) upgradient monitoring well to determine background concentrations and sufficient downgradient monitoring wells at the edge of the property boundary based on groundwater hydrology.

4.4.4.3.2 Within 54 months of the effective date of this general permit, permittees must install the monitoring wells described in the plan required in section 4.4.4.3.1 of this general permit. The monitoring wells will be used to monitor ground water discharge compliance during the term following the term of this general permit.

4.4.4.3.3 Beginning 60 months after the effective date of this general permit, permittees shall monitor all groundwater monitoring wells for the parameters in Table 4.4.3.2 semi-annually. The results shall be recorded on DMRs. The monitoring wells shall be identified in all reports as up-gradient, mid-field (if applicable), and downgradient.

4.5. Petroleum and Natural Gas Hydrostatic Pressure Testing Discharges to Surface Water

4.5.1. Conditions

4.5.1.1 No discharge shall contain (or cause in the receiving stream) a visible oil sheen, floating solids, visible discoloration, or foaming.

4.5.1.2 No discharge shall cause acute or chronic toxicity in the receiving water body.

4.5.1.3 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 by more than 1.5°F.

4.5.1.4 The wastewater 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.

4.5.1.5 Discharges authorized by this general permit may not contain any substances found in Appendix B, Tables II, III, and V and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies unless the concentration of those substances do not exceed: (a) all effluent limits specified in Section 4 of this general permit; or (b) if no such limit is specified, the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.

4.5.1.6 The maximum daily flow shall not exceed the maximum daily flow specified in the permit registration.

4.5.1.7 Prior to any hydrostatic pressure testing, each permittee shall remove to the maximum extent all solid and liquid substances including scale, soil and any residues from materials previously contained in the tank or pipeline using, at a minimum the following practices:

- for all pipelines: cleaning with either compressed air, high pressure water spray, or both;
- for natural gas pipelines: cleaning with compressed air and with cleaning pigs designed for such pipelines; and/or
- for all used tanks: cleaning with compressed air, high pressure water spray, or both.

4.5.1.8 Wastewaters generated from the cleaning procedures described above are not considered an eligible discharge authorized by this general permit. The wastewater generated shall be collected for off-site transport and disposal by a licensed waste

transporter.

4.5.1.9 No chemicals are to be added to any water used for hydrostatic pressure testing after it enters the site, or to the tanks or pipelines which are being tested.

4.5.1.10 The maximum daily discharge limit for hydrostatic pressure testing of natural gas and petroleum tanks and pipelines wastewater to surface water is 500,000 gallons per day.

4.5.1.11 All hydrostatic pressure testing wastewater discharging directly to a surface water body shall be provided with controls such as check dams or temporary basins to prevent erosion or any visible discoloration and foaming of the receiving water body and to dissipate energy prior to discharge to mitigate scouring of the streambed and adverse impacts.

4.5.1.12 If the source of hydrostatic pressure testing water is a surface water body the intake point of the pipe used to draw the test water from the surface water shall be located at a depth which minimizes the entrainment of sediments.

4.5.2. Numeric Effluent Limits

4.5.2.1 A discharge of petroleum and natural gas hydrostatic pressure testing wastewater to surface water shall comply with the following limits in Tables 4.5.2.1 and 4.5.2.2 below.

Table 4.5.2.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Petroleum and Natural Gas Hydrostatic Pressure Testing Water to Surface Water

Parameter	Limit	Unit	Minimum Level
Flow	500,000	Gpd	not applicable
pH[1]	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons	5.0	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Total Suspended Solids	45	mg/l	not applicable

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.5.2.2—Maximum Effluent Limits for Discharges of Petroleum and Natural Gas Hydrostatic Pressure Testing to Surface Water by Instream Waste Concentration									
Parameter	**Instream Waste Concentration [(1)]**								
	Reservoir & Lake	**0 to 5%**	**>5% to 20%**	**>20% to 40%**	**>40% to 70%**	**>70% to 100%**	**Inter-mittent Discharge**	**Units**	**Minimum Level (unit)**
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	0.01 mg/l
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	not applicable
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	0.005 mg/l
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	0.005 mg//l
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	0.01 mg/l
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	0.020 mg/l

Footnotes:

[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow (7Q10) of the receiving stream and multiplying the result by 100.

4.5.3. Monitoring

The permittee shall monitor the discharge for the parameters in Tables 4.5.2.1 and 4.5.2.2. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.5.3:

Table 4.5.3 — Petroleum and Natural Gas Hydrostatic Pressure Testing Surface Water Discharge Parameter Monitoring Frequency and Reporting		
Permitted Maximum Daily Flow (gallons per day)	**Parameter Monitoring Frequency**	**Submittal of Information[1]**
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.5.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.5.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.6. Petroleum and Natural Gas Hydrostatic Pressure Testing Discharges to Ground Water

4.6.1. Permit Conditions

4.6.1.1 Prior to any hydrostatic pressure testing, each permittee shall remove to the maximum extent all solid and liquid substances including scale, soil and any residues from materials previously contained in the tank or pipeline using, at a minimum the following practices:

- for all pipelines: cleaning with either compressed air, high pressure water spray, or both;
- for natural gas pipelines: cleaning with compressed air and with cleaning pigs designed for such pipelines; and/or
- for all used tanks: cleaning with compressed air, high pressure water spray, or both.

4.6.1.2 Wastewaters generated from the cleaning procedures described above are not considered an eligible discharge authorized by this general permit. The wastewater generated shall be collected for off-site transport and disposal by a licensed waste transporter.

4.6.1.3 No chemicals are to be added to any water used for hydrostatic pressure testing after it enters the site, or to the tanks or pipelines which are being tested.

4.6.1.4 The maximum daily discharge limit for hydrostatic pressure testing of natural gas and petroleum tanks and pipelines wastewater to ground water is 500,000 gallons per day.

4.6.1.5 Erosion and sediment controls shall be utilized when necessary, and structural practices must be implemented to divert flows away from exposed soils, retain the discharges where they will infiltrate the ground, and otherwise limit the discharge off pollutants from the site. All steps must be taken to avoid discharging when the ground surface is frozen.

4.6.1.6 Discharges shall be seventy-five feet from any private well and two-hundred feet from any public well.

4.6.1.7 The following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well:

Table 4.6.1.7 – Minimum Horizontal Separating Distances	
Item	**Separating Distance (feet)**
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.6.1.8 For discharges to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient

4.6.2. Numeric Effluent Limits

4.6.2.1 A discharge of petroleum and natural gas hydrostatic pressure testing wastewater land applied to the ground, to a subsurface disposal system, or an infiltration basin shall comply with the following limits in Table 4.6.2.1 below:

Table 4.6.2.1 — Maximum Effluent Limits for Discharges of Petroleum and Natural Gas Hydrostatic Pressure Testing to Ground Water			
Parameter	**Maximum Limit**	**Unit**	**Minimum Level (unit)**
Flow	500,000	gpd	not applicable
Temperature	Monitor	°F	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Aluminum, total	1.5	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Iron, total	3.0	mg/l	0.040 mg/l
Lead, total	Monitor	mg/l	0.005 mg/l
Manganese, total	3.0	mg/l	not applicable
Zinc, total	Monitor	mg/l	0.010 mg/l

4.6.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.6.2.1. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.6.3:

Table 4.6.3. Petroleum and Natural Gas Hydrostatic Pressure Testing Ground Water Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.6.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.6.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.7. Fire Suppression System Testing and Hydrant Flushing Water Discharges to Surface Water

4.7.1. Permit Conditions

4.7.1.1 No discharge shall contain or cause in the receiving stream a visible oil sheen, floating solids, visible discoloration, or foaming.

4.7.1.2 No discharge shall cause acute or chronic toxicity in the receiving water body.

4.7.1.3 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 by more than 1.5°F.

4.7.1.4 The wastewater 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.

4.7.1.5 Discharges authorized by this general permit may not contain any substances found in Appendix B, Tables II, III, and V and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies unless the concentration of those substances do not exceed: (a) all effluent limits specified in Section 4 of this general permit; or (b) if no such limit is specified, the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.

4.7.1.6 Fire suppression system testing or hydrant flushing wastewaters shall be discharged to a surface water only if a discharge to a municipal sanitary sewer or to a subsurface disposal system or land application to the ground surface are not available as an option.

4.7.1.7 All fire suppression system testing or hydrant flushing wastewater discharging directly to a surface water body shall be provided with controls as necessary to remove accumulated solids and to prevent erosion, sedimentation, visible discoloration and foaming of the receiving water body and to dissipate energy prior to discharge to mitigate scouring of the stream bed and adverse impacts.

4.7.2. Numeric Effluent Limits

4.7.2.1 A discharge of fire suppression system testing or hydrant flushing wastewater to surface water shall comply with the following limits in Tables 4.7.2.1 and 4.7.2.2 below.

Table 4.7.2.1 Instantaneous Maximum Effluent Limits for Discharges of Fire Suppression System Testing and Hydrant Flushing Water to Surface Water

Parameter	Limit	Unit	Minimum Level
Flow	500,000	gpd	not applicable
pH[1]	6.0 – 9.0	s.u.	not applicable
Total Petroleum Hydrocarbons	5.0	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Total Suspended Solids	20	mg/l	not applicable
Total Dissolved Solids	Monitor	mg/l	not applicable

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.7.2.2. Instantaneous Maximum Effluent Limits for Discharges of Fire Suppression System Testing and Hydrant Flushing to Surface Water by Instream Waste Concentration

Parameter	Instream Waste Concentration (1)								
	Reservoir & Lake	0 to 5%	>5% to 20%	>20% to 40%	>40% to 70%	>70% to 100%	Inter-mittent Discharge	Units	Minimum Level (unit)
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	0.010 mg/l
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	not applicable
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	0.005 mg/l
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	0.005 mg/l
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	0.010 mg/l
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	0.020 mg/l

Footnotes:

[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow (7Q10) of the receiving stream and multiplying the result by 100.

4.7.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.7.2.1 and Table 4.7.2.2. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.6.3:

Table 4.6.3 Fire Suppression System Testing and Hydrant Flushing to Ground Water Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.6.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.6.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.8. Fire Suppression System Testing and Hydrant Flushing Discharges to Ground Water

4.8.1. Permit Conditions

4.8.1.1 Erosion and sediment controls shall be utilized when necessary, and structural practices must be implemented to divert flows away from exposed soils, retain the discharges where they will be land applied to the ground on the discharger's property, and otherwise limit the discharge of pollutants from the site into surface waters. All steps must to be taken to avoid land applying to the ground when the ground surface is frozen.

4.8.1.2 The following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well:

Table 4.8.1.2 – Minimum Horizontal Separating Distances

Item	Separating Distance (feet)
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.8.1.3 For discharges to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient.

4.8.2. Numeric Effluent Limits

4.8.2.1 A discharge of fire suppression system testing or hydrant flushing wastewater land applied to the ground, to a subsurface disposal system, or an infiltration basin shall comply with the following limits in Table 4.8.2.1 below

Table 4.8.2.1 — Maximum Limits for Fire Suppression System Testing or Hydrant Flushing Discharges to Ground Water

Parameter	Maximum Limit	Unit	Minimum Level (unit)
Flow	500,000	gpd	not applicable
Temperature	Monitor	°F	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Aluminum, total	1.5	mg/l	not applicable
Iron, total	3.0	mg/l	0.040 mg/l
Manganese, total	3.0	mg/l	not applicable

4.8.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.8.2.1. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.8.3:

Table 4.8.3. Fire Suppression System Testing or Hydrant Flushing Wastewater Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.8.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.8.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.9. Boiler Blowdown Discharges to Ground Water

4.9.1. Permit Conditions

4.9.1.1 Only boiler blowdown discharges from boiler water to which chemicals are not added are authorized by this general permit.

4.9.1.2 All boiler blowdown discharges shall be to an engineered subsurface disposal system and not land applied to the ground surface or surface waters.

4.9.1.3 All discharges of minor boiler blowdown wastewaters shall be discharged to ground water which, on the effective date of this general permit or the date the discharge is initiated, whichever is later, has an existing or future Water Quality Classification of GA or GB in the Connecticut Water Quality Standards adopted pursuant to section 22a-426 of the Connecticut General Statutes.

4.9.1.4 Boil-out and boiler acid wastewaters are not eligible waste streams authorized to be discharged by this permit. The discharge of these wastewaters must be permitted separately under section 22a-430 or 22a-430b of the Connecticut General Statutes, or these wastewaters must be collected by a waste transporter holding a valid license issued by the Commissioner for that purpose.

4.9.1.5 The following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well:

Table 4.9.1.5 – Minimum Horizontal Separating Distances

Item	Separating Distance (feet)
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.9.1.6 For discharges to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient.

4.9.2. Numeric Effluent Limits

4.9.2.1 A discharge of boiler blowdown to a subsurface disposal system shall comply with the following limits in Table 4.9.2.1 below

Table 4.9.2.1. Instantaneous Maximum Limits for Boiler Blowdown Discharges to Ground Water

Parameter	Maximum Limit	Unit	Minimum Level (unit)
Flow	500,000	gpd	not applicable
Temperature	Monitor	°F	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Aluminum, total	1.5	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Iron, total	3.0	mg/l	0.040 mg/l
Lead, total	Monitor	mg/l	0.005 mg/l
Zinc, total	Monitor	mg/l	.010 mg/l

4.9.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.9.2.1. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.9.3

Table 4.9.3. Boiler Blowdown Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.9.3.1 Monitoring Location
All samples be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.9.3.2 Sample Type
Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.10. Pressure Washing Wastewater Discharges to Surface Water

4.10.1. Permit Conditions

All discharges of pressure washing wastewater to surface water must conform to the following permit requirements and best management practices.

4.10.1.1 No discharge shall contain or cause in the receiving stream a visible oil sheen, floating solids, visible discoloration, or foaming.

4.10.1.2 No discharge shall cause acute or chronic toxicity in the receiving water body.

4.10.1.3 The temperature of the discharge shall not increase the temperature of the receiving water above 85^{o}F for freshwaters and 83^{o}F for marine waters, nor shall the discharge raise the temperature of the receiving stream more than 4^{o}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 by more than 1.5^{o}F.

4.10.1.4 The wastewater 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 waste waters not authorized by this general permit.

4.10.1.5 Discharges authorized by this general permit may not contain any substances found in Appendix B, Tables II, III, and V and Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies unless the concentration of those substances do not exceed: (a) all effluent limits specified in Section 4 of this general permit; or (b) if no such limit is specified, the most restrictive aquatic life or human health criteria listed in Appendix D of the Water Quality Standards.

4.10.1.6 Wastewaters shall be discharged to a surface water only if a discharge to a municipal sanitary sewer, to a subsurface disposal system, or land application to the ground surface are not technically feasible or practicable.

4.10.1.7 Wastewater discharging directly to a surface water body shall be provided with controls as necessary to remove accumulated solids and to prevent erosion, sedimentation, visible discoloration and foaming of the receiving water body and to dissipate energy prior to discharge to mitigate scouring of the stream bed and adverse impacts.

4.10.1.8 Pressure washing discharges must not contain cleaners, detergents, chemical or biological additives, and the wastewater resulting from power washing activities may not reasonably be expected to contain any such substances due to the type of surface and/or materials to be washed.

4.10.1.9 The discharge of pressure washing wastewater used for the chemical and/or mechanical stripping of paint, other than graffiti removal is prohibited.

4.10.1.10 The pressure washing of boats, bottom hulls, or other surfaces that are painted with an anti-fouling paint is prohibited under this general permit.

4.10.2. Numeric Effluent Limits

4.10.2.1 A discharge of pressure washing wastewater to surface water shall comply with the following limits in Tables 4.10.2.1 and 4.10.2.2 below.

Table 4.10.2.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Pressure Washing Water to Surface Water

Parameter	Limit	Unit	Minimum Level
Flow	500,000	gpd	not applicable
pH[1]	6.0 – 9.0	s.u.	not applicable
Total Petroleum Hydrocarbons	5.0	mg/l	not applicable
Total Suspended Solids	20	mg/l	not applicable
Total Dissolved Solids	Monitor	mg/l	not applicable

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.10.2.2. Instantaneous Maximum Limits for Discharges of Pressure Washing Water to Surface Water by Instream Waste Concentration

Parameter	Instream Waste Concentration (1)								
	Reservoir & Lake	0 to 5%	>5% to 20%	>20% to 40%	>40% to 70%	>70% to 100%	Intermittent Discharge	Units	Minimum Level (unit)
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	0.010 mg/l
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	not applicable
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	0.005 mg/l
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	0.005 mg/l
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	0.010 mg/l
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	0.020 mg/l

Footnote:
[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow (7Q10) of the receiving stream and multiplying the result by 100.

4.10.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.10.2.1 and Table 4.10.2.2. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.10.3:

Table 4.10.3. Pressure Washing Wastewater Discharge Parameter Monitoring Frequency and Reporting

Permitted Maximum Daily Flow (gallons per day)	Parameter Monitoring Frequency	Submittal of Information[1]
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.10.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.10.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.11. Pressure Washing Discharges to Ground Water

4.11.1. Permit Conditions

All discharges of pressure washing water land applied to the ground must conform to the following minimum requirements:

4.11.1.1 Collection of the wastewater and discharge to a POTW was not technically feasible or practicable.

4.11.1.2 Pressure washing discharges must not contain cleaners, detergents, chemical or biological additives, and the wastewater resulting from pressure washing activities may not reasonably be expected to contain any such substances due to the type of surface and/or materials to be washed.

4.11.1.3 The discharge of pressure washing wastewater used for the chemical and/or mechanical stripping of paint, other than graffiti removal, is prohibited.

4.11.1.4 The pressure washing of boats, bottom hulls, or other surfaces that are painted with an anti-fouling paint is prohibited.

4.11.1.5 All discharges of pressure washing wastewater must be land applied to a pervious ground surface without runoff to storm drains or surface water bodies. All storm drains in the vicinity of the pressure washing operation must be obstructed in a manner which ensures that no pressure washing wastewater reaches any storm drain or surface water body.

4.11.1.6 Permittees shall insure that all discharges do not impact any drinking water wells.

4.11.1.7 The following minimum separating distances shall be maintained between any point of a disposal system and any potable water supply well:

Table 4.11.1.7 Minimum Horizontal Separating Distances

Item	Separating Distance (feet)
Public or private water supply well with required withdrawal rate of:	
< 10 gal. per minute	75
10 to 50 gal. per minute	150
> 50 gal. per minute	200
Watercourse	50
Public Water Supply Reservoir	100
Property Line	15
Subsurface Sewage Disposal System	10

4.11.1.8 For discharges to a subsurface disposal system, the minimum separating distance between any point of the disposal system and any *downgradient* potable water supply well shall be 1,000 feet. 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 ground water gradient if it is known, or if no data indicating ground water gradient is known, topographic gradient.

4.11.2. Numeric Effluent Limits

4.11.2.1 A discharge of pressure washing wastewater land applied to the ground or to a subsurface disposal system shall comply with the following limits in Table 4.11.2.1 below

Table 4.11.2.1. Instantaneous Maximum Effluent Limits for Discharges of Pressure Washing Water to Ground Water

Parameter	Maximum Limit	Unit	Minimum Level (unit)
Flow	500,000	gpd	not applicable
Temperature	Monitor	°F	not applicable
pH	6.0 – 9.0	S.U.	not applicable
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	not applicable
Aluminum, total	1.5	mg/l	not applicable
Copper, total	Monitor	mg/l	0.005 mg/l
Iron, total	3.0	mg/l	0.040 mg/l
Lead, total	Monitor	mg/l	0.005 mg/l
Manganese, total	3.0	mg/l	not applicable
Zinc, total	Monitor	mg/l	0.010 mg/l

4.11.3. Monitoring

The permittee shall monitor the discharge for the parameters in Table 4.11.2.1. The frequency of parameter monitoring shall be determined by the discharge flow as follows in Table 4.11.3:

Table 4.11.3. Pressure Washing Wastewater Discharge to Groundwater Parameter Monitoring Frequency and Reporting		
Permitted Maximum Daily Flow (gallons per day)	**Parameter Monitoring Frequency**	**Submittal of Information[1]**
0 to 500	No Monitoring	None
501 to 500,000	1st 10% & last 10% per event	Retain

Footnotes:

[1] The results of all analyses are required to be retained on site and a DMR is not required to be submitted to the Commissioner, unless otherwise specified. The Permittee shall retain records, at a minimum, of the following: name of person, date, location, flow, individual parameters, sampling results, chain of custody, and laboratory analyses. Records shall be retained by the Permittee and provided to the Commissioner within two (2) business days upon request.

4.11.3.1 Monitoring Location

All samples shall be representative of the discharge, collected after all treatment, prior to mixing with any other waters, and before discharged to waters of the state.

4.11.3.2 Sample Type

Samples taken for the purpose of determining compliance with the effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

4.12. Monitoring Plan

All permittees must develop, maintain, and implement a monitoring plan required by Section 3.4.3 of this general permit which describes, for each discharge, the:

- Records of monitoring information shall include the following:
- The mass or other measurement specified in the permit for each pollutant or substance;
- Total flow for each discharge for each day of discharge and other flow measurements specified in the permit for each discharge;
- The date, exact place, and time of sampling or measurements;
- The individuals who performed the sampling or measurements;
- The dates analyses were performed;
- The individuals who performed the analyses;
- The analytical techniques or methods used;
- The results of such analyses;

- Frequency and duration for non-continuous discharges;
- Production information, where effluent limitations are production based, or as may otherwise be required by the Commissioner;
- All calibration and maintenance records and original strip chart recordings for continuous monitoring, recording or controlling instrumentation related to the wastewater treatment system; and
- Any other information specified in the permit.

The Commissioner may require the permittee to submit some or all of this information at any time or as part of a regular schedule of reporting.

4.13. Sample Analysis

4.13.1. All samples shall be collected, handled, and analyzed in accordance with the methods approved under 40 CFR 136, unless another method is required under 40 CFR subchapter N or unless an alternative method has been approved in writing pursuant to 40 CFR 136.5 or as provided in section 22a-430-3(j)(7). To determine compliance with limits and conditions established in this permit, monitoring must be performed using sufficiently sensitive methods approved pursuant to 40 CFR 136 for the analysis of pollutants having approved methods under that part, unless a method is required under 40 CFR subchapter N or unless an alternative method has been approved. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified by the Commissioner.

4.13.2. All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.

4.13.3. The Minimum Levels (ML) specified in this general permit represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 4.0 of this general permit. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

4.13.4. The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.

4.13.5. Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.

4.13.6. Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this

permit.

4.13.7. It is a violation of this permit for a Permittee or his/her designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed.

4.14. Flow Monitoring

4.14.1. For flows less than 5,000 gallons per day, the permittee may use reasonable methods to monitor or estimate flow such as the use of dedicated incoming water meter, a bucket and a stop-watch, maximum pump capacity, pump rate, or other generally acceptable engineering practices.

4.14.2. For discharges greater than 5,000 gallons per day to a surface water body, the permittee shall use either:

- A flow meter which measures, visually indicates and records instantaneous and total daily flow; or
- a method which a Qualified Professional has determined will measure and record total daily flow during all periods of discharge.

4.14.3. Total daily flow shall be monitored and recorded for each discharge and for each day of discharge. The permittee must record flow for each day of discharge, but only the highest flow of the month gets reported on the DMR.

4.15. Whole Effluent Toxicity (WET) Limits

4.15.1. Acute aquatic toxicity monitoring shall be performed using the NOAEL protocol specified in section 22a-430-3(j)(7)(A) of the RCSA and as prescribed in the reference document *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821-R-02-012), or the most current version, with any exceptions or clarifications noted below or by the Commissioner.

4.15.2. Sample collection and handling

4.15.2.1 All samples collected to determine compliance with aquatic toxicity limits in this general permit shall be grab samples.

4.15.2.2 Grab samples shall be chilled immediately following sample collection. Samples shall be held at 0 - 6 °C until aquatic toxicity testing is initiated.

4.15.2.3 Samples used for aquatic toxicity analysis shall not be dechlorinated, filtered, or modified in any way prior to testing, except for samples which require salinity adjustment. For salinities between 5 ppt and 15 ppt, the salinity of the effluent may be adjusted to 15 ppt using artificial sea salts.

4.15.3. Analytical Testing

4.15.3.1 Toxicity tests shall be initiated within 24 hours of sample collection.

4.15.3.2 Toxicity tests shall be 48 hours in duration.

4.15.3.3 Copper, lead, iron, zinc, total residual chlorine, pH, temperature, salinity, hardness, alkalinity, total suspended solids, total dissolved solids, turbidity, specific conductance, and appearance shall be measured in the undiluted effluent sample and in the dilution (control) water at the beginning of the test and at test termination. If total residual chlorine is not detected at test initiation, it does not need to be measured at test termination.

Note: The Department is currently updating its methodology for receiving this information and this language maybe modified in the final permit.

4.15.3.4 For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24-hours old) *Daphnia pulex* and juvenile (1-14 days old, with no greater than a 24-hour range in age) *Pimephales promelas* as test organisms.

4.15.3.5 For salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) *Mysidopsis bahia* and juvenile (9-14 days old, with no greater than a 24-hour range in age) *Menidia beryllina* as test organisms.

4.15.3.6 Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (±5 mg/L) as $CaCO_3$ shall be used as dilution water.

4.15.3.7 All effluent concentrations and the control(s) used in the test shall have the same salinity. If the effluent requires salinity adjustment to a standard salinity, this shall be accomplished by adding a minimum amount of commercial sea salts as described in EPA-821-R-02-012.

4.15.3.8 Organisms shall not be fed during the tests, except for *Mysidopsis bahia*. *Mysidopsis bahia* may be fed.

4.15.3.9 Copper nitrate shall be used as the reference toxicant for freshwater organisms and sodium lauryl sulfate, or sodium dodecyl sulfate shall be used as the reference toxicant for saltwater organisms.

4.15.3.10 Dissolved oxygen, pH, and temperature shall be measured in the control and in all test concentrations at the beginning of the test, daily thereafter, and at test termination.

4.15.4. Compliance with aquatic toxicity limits shall be demonstrated when the results of a valid pass/fail

aquatic toxicity test indicates there is 90% or greater survival in the undiluted effluent.

4.15.5. Should either of the below conditions occur, a second sample of the discharge must be collected and analyzed for aquatic toxicity within 30 days of the previous test:

4.15.5.1 The survival of the test organisms was less than 90% in the average of the test chambers containing undiluted effluent. Note if survival of the test organisms was less than 90% in the average of the test chambers containing undiluted effluent, the result is interpreted as a permit limit exceeded.

4.15.5.2 The survival of test organisms was less than 90% in each replicate control test chamber or test conditions were not achieved as specified in section 22a-430-3(j)(7)(A) of the RCSA, such as maintenance of appropriate environmental controls. Note: if the survival of test organisms was less than 90% in each replicate control test chamber or test conditions were not achieved as specified in section 22a-430-3(j)(7)(A) of the RCSA, the toxicity test is interpreted as an invalid test.

4.15.6. If any two consecutive test results or any three test results in a twelve-month period indicate that an aquatic toxicity limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and submit a Toxicity Identification/Reduction Evaluation (see Methods for Aquatic Toxicity Identification Evaluations, Publication No. EPA/600/6-91/003) for the review, and if necessary written approval of the Commissioner, which describes in detail the steps taken or shall be taken to eliminate the toxic impacts of the discharge on the receiving water. The report shall also include a proposed schedule for implementation. Such report shall be submitted within 30 days of the last exceedance. The Permittee shall implement all actions in accordance with the approved report and schedule.

4.16. Reporting Requirements

4.16.1. For activities that are required to submit a Registration

4.16.1.1 DMRs shall be submitted electronically to the DEEP no later than the last day of the month following the completed reporting period. Monitoring required more frequently than monthly will be reported as an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136, or another method required for an industry-specific waste stream under 40 CFR subchapter N or O, or other methods approved by the Commissioner, will also be included on the DMR, or as an attachment, if necessary, and the results of such monitoring will be included in the calculation and reporting of the data submitted in the DMR.

4.16.1.2. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director.

4.16.1.3. All aquatic toxicity analytical reports must be included as an attachment to the DMR.

Note: The Department is currently updating its methodology for receiving this

information and this language maybe modified in the final permit.

4.16.1.4. Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, shall be entered on the prescribed Aquatic Toxicity Monitoring Report form (ATMR) and electronically submitted to the Bureau of Water Protection and Land Reuse at the following electronic address: Note: To be determined in the final permit. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected.

4.16.1.5. If the general permit requires monitoring of a discharge on a calendar basis (e.g. monthly, quarterly, etc.), but a discharge has not occurred within the required frequency of sampling specified in the general permit, the permittee must submit the DMR using the appropriate NODI code and ATMR indicating "NO DISCHARGE" as required by the general permit.

4.16.1.6. NetDMR Reporting Requirements

4.16.1.6.1. The Permittee shall report electronically using NetDMR, a web-based tool that allows permittees to electronically submit Discharge Monitoring Reports (DMRs) and other required reports through a secure internet portal. All reports required under the permit, including any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an attachment to the DMR in NetDMR. NetDMR is accessed at https://npdes-ereporting.epa.gov/net-netdmr .

4.16.1.6.2. Submittal of Reports Using NetDMR
DMRs shall be submitted electronically to the Department no later than the last day of the month following the reporting period.

4.16.2. 00000If permit noncompliance occurred during the monitoring period, a written report required by this general permit detailing the violation of the any limitation or permit condition must be included as an attachment to the DMR.

4.17. Record Keeping Requirements

4.17.1. The permittee shall retain copies of all application documents, laboratory analysis and reports required by the permit for a period of at least five (5) years from the date of the report or application. Records required by this general permit shall be retained on-site, or at the permittee's principal place of business in Connecticut, as required by section 22a-430-3(j).

4.17.2. Permittees must provide copies of all monitoring data upon the Commissioner's request within two (2) business days of the request.

4.17.3. The Commissioner may extend this period as he or she deems necessary upon written notice to the permittee, and this period is automatically extended for as long as a permittee is under an active

order from the Commissioner under Chapter 446K of the Connecticut General Statutes or if the permittee is in litigation for any violation of any permit or order issued by the Commissioner under Chapter 446K of the Connecticut General Statutes.

4.18. Treatment System Operation and Maintenance

4.18.1. The permittee must maintain any treatment, collection, or conveyance systems necessary to meet the general permit effluent limits and conditions contained in the general permit and Approval of Registration at all times.

4.18.2. The permittee shall treat the discharge for any pollutant identified as present in the untreated wastewater at a concentration exceeding the limits of this general permit or the limitations specified in an Approval of Registration.

4.18.3. The treatment system must be maintained at all times as described in the registration.

4.18.3.1 Treatment systems shall be inspected and maintained at regularly scheduled intervals as determined by manufacturer specifications, site specific conditions and best professional judgment. The permittee shall conduct routine inspections of all equipment associated with the discharges authorized by this general permit. Inspections shall be conducted as necessary, but no less than monthly, to ensure proper operation of all equipment.

4.18.3.2 A written log shall be maintained on-site or at the permittee's principal place of business in Connecticut, as required by section 22a-430-3(j) documenting the date of inspection, inspector's name, verification of operation of critical equipment, and a summary of any work or change in equipment associated with the discharges authorized by this general permit.

4.18.3.3 If the discharge is directed to a waterbody or tributary to any waterbody that contributes to a source of public drinking water, treatment shall at a minimum in corporate technologies certified by the NSF for the treatment of drinking water for the removal of the pollutants of concern and be designed for the flows anticipated.

4.18.3.4 The discharge shall cease if the treatment system is not operating as necessary to maintain compliance with all effluent limitations.

4.18.4. Erosion and Sediment Controls

4.18.4.1 If authorized activities create a potential for pollution due to the erosion of soil; erosion and sediment control measures shall be installed and maintained in compliance with the standards set forth in the "Connecticut Guidelines for Soil Erosion and Sediment Control" (2023, as revised), established pursuant to section 22a-328 of the General Statutes.

4.18.4.2 During the construction of any dewatering facility associated with the discharge, erosion and sediment control measures shall be installed and maintained to

ensure that erosion of disturbed soils and discharge of eroded sediments to tidal wetlands, inland wetlands and watercourses are minimized or eliminated.

4.18.4.3 Erosion and sediment control measures shall be installed and maintained to ensure that discharge energies are sufficiently dissipated to prevent the erosion of soil or the discharge of eroded sediments to tidal wetlands, inland wetlands and watercourses.

5. Duty to Correct, Record, and Report Violations

5.1. Corrective Actions

Immediately upon learning of a violation of a condition of this general permit, the permittee shall immediately take all reasonable actions to determine the cause of the violation, correct the violation, mitigate the impact of the violation, and prevent its recurrence.

5.2. Reporting Violations

5.2.1. Noncompliance with Permit Terms or Conditions

5.2.1.1 In accordance with Section 22a-430-3(j)(8), 22a-430-3(j)(11)(D), 22a-430-3(k)(4), and 22a-430-3(i)(3) of the RSCA, the Permittee shall notify the Commissioner of the following actual or anticipated noncompliance with the terms or conditions of this permit within two hours of becoming aware of the circumstances. All other actual or anticipated violations of the permit shall be reported to the Commissioner within 24 hours of becoming aware of the circumstances:

5.2.1.1.1 A noncompliance that is greater than two times an effluent limitation;
5.2.1.1.2. A noncompliance of any minimum or maximum daily limitation or excursion beyond a minimum or maximum daily range;
5.2.1.1.3. Any condition that may endanger human health or the environment, including but not limited to noncompliance with WET limitations;
5.2.1.1.4. A failure or malfunction of monitoring equipment used to comply with the monitoring requirements of this permit;
5.2.1.1.5. Any actual or potential bypass of the Permittee's collection system or treatment facilities; or
5.2.1.1.6. Expansions or significant alterations of any wastewater collection, treatment facility, or its method of operation for the purpose of correcting or avoiding a permit violation.

5.2.1.2 Notifications shall be submitted via the Commissioner's online Noncompliance Notification Form: https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements.

5.2.2. Five (5) Day Follow Up Report

5.2.2.1 Within five days of any notification of noncompliance in accordance with this permit, the Permittee shall submit a follow-up report within five days of the noncompliance using the Commissioner's online Noncompliance Follow-up Report Form: https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements. The follow-up report shall contain, at a minimum, the following information:

5.2.2.1.1. A description of the noncompliance and its cause;
5.2.2.1.2. the period of noncompliance, including exact dates and times;
5.2.2.1.3. if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
5.2.2.1.4. steps taken or planned to correct the noncompliance and reduce, eliminate and prevent recurrence of the noncompliance.

5.2.3. Notification of an actual or anticipated noncompliance or facility modification does not stay any term or condition of this permit.

5.2.4. Additional Notification Requirements

In accordance with Section 22a-430-3(j)(11)(ED) of the RSCA, the Permittee shall notify the Commissioner within 72 hours and in writing within 30 days when he or she knows or has reason to believe that the concentration in the discharge of any substance listed in the application, or any toxic substance as listed in Appendix B or D of RSCA Section 22a-430-4, has exceeded or will exceed the highest of the following levels:

5.2.4.1. One hundred micrograms per liter;
5.2.4.2 Two hundred micrograms per liter for acrolein and acrylonitrile, five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter for antimony;
5.2.4.3 An alternative level specified by the Commissioner, provided such level shall not exceed the level which can be achieved by the Permittee's treatment system; or
5.2.4.4 A level two times the level specified in the Permittee's application.

72-hour initial notifications and 30 day follow-up reports shall be submitted via the Commissioner's online Noncompliance Follow-up Report Form. The Forms are available at the Commissioner's website, here:

https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements .

6. Regulations of Connecticut State Agencies Incorporated into this General Permit

Unless specific conditions, terms or limitations within this general permit are more restrictive, 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:

6.1. 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 Limit Violations
Subsection (n)	Enforcement
Subsection (o)	Resource Conservation
Subsection (p)	Spill Prevention and Control
Subsection (q)	Instrumentation, Alarms, Flow Recorders
Subsection (r)	Equalization

6.2. Section 22a-430-4

Subsection (p)	Revocation, Denial, Modification
Subsection (q)	Variances
Subsection (t)	Prohibitions

7. Standard Conditions

The following standard conditions have been included in this general permit for the convenience of the permittee and are generally duplicative of the incorporated regulations in section 4.20 of this general permit. If there are conflicting requirements the regulations in section 22a-430 take precedence.

7.1. Inspection and Entry

The Commissioner or his or her authorized representative may take any actions authorized by sections 22a-6 (5), 22a-425 or 22a-336 of the CGS as amended.

7.2. Submission of Documents

Any document, other than a DMR, required to be submitted to the Commissioner under this section of the permit will, unless otherwise specified in writing by the Commissioner or through this general permit, be directed to:

DEEP.waterpermittingenforcement@ct.gov

With the subject line: "ATTN: Comprehensive General Permit for Discharges to Surface Water and Ground water Permit No. CTXXXXXXX".

Note: The Department is currently updating its methodology for receiving this information and this language maybe modified in the final permit.

For permittees that are not required to submit a registration to the Commissioner, the permit number will CTC000000. For permittees required to submit a registration the unique permit number will be provided to the permittee in the Approval of Registration provided by the Commissioner.

7.3. Violations

Violations of any of the terms, conditions, or limitations contained in this permit may subject the permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the Connecticut General Statutes and RCSA.

7.4. Enforcement

The Commissioner may take any enforcement action provided by law, including but not limited to seeking injunctions, penalties and forfeitures as provided in sections 22a-6, 22a-7, 22a-430, 22a-432, 22a-435, 22a-438 and 22a-471 of the Connecticut General Statutes as amended, for any violations or acts of noncompliance with chapter 446k of the Connecticut General Statutes or any regulation, order, permit or approval issued there under.

7.5. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

7.6. No Assurance

No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the permittee pursuant to this permit will result in compliance or prevent or abate pollution.

7.7. Relief

Nothing in this permit shall relieve the permittee of other obligations under applicable federal, state and local law.

7.8. Duty to Provide Information

The Commissioner may require any permittee to provide within a reasonable time (30 days) any information which the Commissioner may request to determine whether cause exists for modifying or revoking the permit or to determine compliance with the permit, including but not limited to copies of records required to be kept by the permittee.

7.9. Duty to Comply

7.9.1. The permittee shall comply with all terms and conditions of the permit. Any permit noncompliance constitutes a violation of Chapter 446k of the Connecticut General Statutes. Permit noncompliance is grounds for enforcement action, permit revocation or modification, or denial of a permit renewal application.

7.9.2. The permittee shall comply with effluent limitations, standards or prohibitions established under section 307 (a) CWA which are adopted in subsection (l) of section 22a- 430-4 of the Regulations of Connecticut State Agencies for toxic substances upon adoption, even if the permit has not yet been modified to incorporate the requirement.

7.9.3. Except for any toxic effluent standards and prohibitions imposed under section 307 CWA, compliance with a permit during its term shall constitute compliance, for purposes of enforcement, with sections 301, 302, 306, 307, 318, 403 and 405 of the Clean Water Act.

7.9.4. The Commissioner may modify or revoke a permit during its term for cause as provided in section 22a-430-4 of the RCSA.

7.9.5. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

7.10. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of the permit or any discharge which has a reasonable likelihood of adversely affecting human health or the environment.

7.11. Sludge Disposal

The permittee shall dispose of screenings, sludges, chemicals, and oils and any solid or liquid wastes resulting from the wastewater treatment processes at locations approved by the Commissioner for disposal of such materials, or by means of a waste hauler licensed under the provisions of the Connecticut General Statutes

7.12. Resource Conservation

All permittees shall implement and maintain practices and/or facilities which, to the maximum extent practicable, result in the minimum amount of wastewater discharged. Such results may be achieved by methods including but not limited to water conservation, resource recovery, waste recycling, wastewater reuse, and material or product substitution. Excessive use of water or the addition of water to dilute an effluent in order to meet any permit limitations or conditions is prohibited.

7.13. Spill Prevention and Control

7.13.1 The permittee shall maintain practices, procedures and facilities designed to prevent, minimize and control spills, leaks or such other unplanned releases of all toxic or hazardous substances and any other substances as the Commissioner deems necessary to prevent pollution of the waters of the state. Such

requirements shall, unless otherwise allowed by the Commissioner, apply to all facilities used for storing, handling transferring, loading, or unloading such substances, including manufacturing areas.

7.13.2 The requirements of this section do not apply to facility components or systems already covered by plans prepared or approved under the Resource Conservation and Recovery Act and the Spill Prevention, Control and Countermeasure program.

7.14. Duty to Reapply

The permit shall be effective for a fixed term not to exceed five years.

7.15. Equalization

All treatment facilities shall be designed to prevent upsets, malfunctions or instances of noncompliance resulting from variations in wastewater strength or flow rate, and shall include, as the Commissioner deems necessary, equalization facilities separate from the treatment facilities.

7.16. Effect of an Upset

7.16.1. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

7.16.2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

7.16.2.1 An upset occurred and that the permittee can identify the cause(s) of the upset;

7.16.2.2 The permitted facility was at the time being properly operated;

7.16.2.3 The permittee submitted notice of the upset timely as required in this general permit; and

7.16.2.4 The permittee complied with all remedial measures.

7.17. Bypass

The permittee shall not at any time bypass the collection system or treatment facilities or any part thereof unless such bypass is unanticipated, unavoidable, and necessary to prevent loss of life, personal injury or severe property damage, and there were no feasible alternatives to the bypass, including but not limited to the use of auxiliary or back- up treatment facilities, retention of untreated wastes, stopping the discharges, or maintenance during normal periods of equipment downtime; or the permittee receives prior written approval of the bypass from the Commissioner in order to perform essential maintenance, and the bypass does not cause effluent limitations to be exceeded

7.17.1. In the event such a bypass is necessary, the permittee shall to the extent possible minimize or halt production and/or all discharges until the facility is restored or an alternative method of treatment is

provided.

7.17.2. In order to prevent a bypass, the permittee may schedule maintenance during periods when no discharge is occurring or employ any necessary means, including but not limited to duplicate units and systems or alternative collection and treatment or pretreatment schemes. Any such means shall insure that the effluent limitations specified in the permit are achieved; be approved by DEEP in writing prior to its use, which approval shall include an alternative schedule for monitoring if appropriate; and be discontinued upon completion of the performance of the essential maintenance.

7.17.3. The permittee shall provide notice to DEEP not less than 24 hours prior to the use of any alternative scheme and monitor and record the quality and quantity of the discharge in accordance with permit terms and conditions or an approved alternative schedule. Such monitoring shall be submitted with the next monitoring report required by the permit and shall not be used to meet routine scheduled monitoring report requirements of the permit.

7.17.4. If any bypass occurs or may occur, the permittee shall, within two hours of becoming aware of such condition or need, notify DEEP during normal business hours ((860)424-3021), and the department's Emergency Response Unit at all other times ((860) 424-3338 or (866) 337-7745) and submit within five days a written report including the cause of the problem, duration including dates and times and corrective action taken or planned to prevent other such occurrences.

7.17.5. In addition, if the permittee has reason to believe that any effluent limitation specified in the permit may be violated, the permittee shall immediately take steps to prevent or correct such violation, including but not limited to employing an alternative scheme of collection or treatment, and/or control the production of the wastewater and shall monitor and record the quality and quantity of the discharge in accordance with the permit terms and conditions or an approved alternative schedule. Such monitoring shall be submitted with the next monitoring report required by the permit and shall not be used to meet the routine monitoring requirements of the permit.

7.18. Proper Operation and Maintenance

7.18.1. The permittee shall at all times properly operate and maintain all facilities and systems and parts thereof for wastewater collection, storage, treatment and control which are installed or used by the permittee to achieve compliance with the terms and conditions of the permit. Proper operation and maintenance includes, but is not limited to, effective performance, adequate funding, and adequate operator staffing and training, including the employment of certified operators as may be required by the Commissioner pursuant to sections 22a-416-1 through 22a-416-10 of the RCSA, as amended, and adequate laboratory and process controls, including appropriate quality assurance procedures.

7.18.2. In accordance with sections 22a-416 through 22a-471 of the Connecticut General Statutes as amended, the permittee is required to install and operate a back-up or auxiliary facilities or similar systems or the inventory of spare parts and appurtenances.

7.19. Instrumentation, Alarms, and Flow Records

Except for batch treatment systems unless required by the Commissioner, process wastewater treatment systems shall include instrumentation to automatically and continuously indicate, record and/or control those functions of the system and characteristics of the discharge which the

Commissioner deems necessary to assure protection of the waters of the state.

7.20. Signatory Requirements

7.20.1. All permit applications or registrations and modification requests submitted to the Commissioner shall be signed as follows:

7.20.1.1 For a corporation: by a responsible corporate officer. For the purposes of this section, a responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding twenty-five million dollars (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

7.20.1.2 For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

7.20.1.3 For a municipality, State, Federal, or other public agency; by either a principal executive officer or a ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

7.20.2. All reports required by permits, and other information submitted to the Commissioner shall be signed by a person described in Section 7.20.1 of this general permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

7.20.2.1 The authorization is made in writing by a person described in Section 7.20.1 of this general permit,

7.20.2.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, position or equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

7.20.2.3 The written authorization is submitted to the Commissioner.

7.20.3. If an authorization under this subsection is no longer accurate because a different individual or position has assumed the applicable responsibility, a new authorization satisfying the requirements of this section must be submitted to the Commissioner prior to or together with any reports or other information to be signed by an authorized representative.

7.20.4. Any person signing a document under this section shall make the following certification.

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure 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 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 knowing violations."
>
> "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 Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

7.21. Date of Filing

For purposes of this general permit, the date of filing with the Commissioner of any document is the date such document is received by the Commissioner.

7.22. False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

7.23. Correction of Inaccuracies

Within fifteen (15) days after the date a permittee becomes aware of a change in any of the information submitted pursuant to this general permit, becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner. Such information shall be certified in accordance with Section 5.20.4 of this general permit.

7.24. Transfer of Authorization

Any authorization under this general permit shall not be transferable.

7.25. Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state, and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

7.26. Duty to Reapply

The permit will be effective for a fixed term not to exceed five (5) years, unless administratively

extended.

7.27. Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

7.28. Effect of a Permit

The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege, authorize any injury to persons or property or invasion of other private rights, authorize any infringement of the Connecticut General Statutes, Regulations of Connecticut State Agencies or municipal ordinances, or affect the responsibility of the permittee to obtain all applicable federal, State and municipal authorizations or permits for the discharge and activities which generate the discharge.

8. Commissioner's Powers

8.1. Abatement of Violations

The Commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The Commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the Commissioner by law.

8.2. General Permit Revocation, Suspension, or Modification

The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

8.3. Filing of an Individual Permit Application

If the Commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty (60) days of receiving the Commissioner's notice. While such application is pending before the Commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of registration. Nothing herein shall affect the Commissioner's power to revoke a permittee's authorization under this general permit at any time.

9. General Definitions

The definitions of terms used in this general permit shall be the same as the definitions contained in section 22a-423 of the Connecticut General Statutes and section 22a-430-3(a) of the Regulations of Connecticut State Agencies. As used in this general permit, the following definitions shall apply:

"Air compressor blowdown" means condensed moisture from compressed air that is drained from the interior of electrical or mechanical air compressor equipment.

"Air compressor condensate" means wastewater which accumulates on the exterior of electrical or mechanical air compressor equipment due to condensation.

"Approval of Registration" means an approval of registration issued under Section 3 of this general permit.

"Authorized activity" means any activity authorized by this general permit.

"Authorized discharge" means a discharge authorized under this general permit.

"Best Management Practice (BMP)" means a practice, procedure, structure or facility designed to prevent or minimize environmental damage, or to maintain or enhance environmental quality. BMPs include without limit treatment requirements, operating procedures, practices to control spillage or leaks, sludge or waste disposal, or providing for drainage from raw material storage.

"Boiler blowdown" means wastewater resulting from periodic or continuous bleed off or draining of bottom, bulk or surface water from a boiler during boiler operation for the purpose of eliminating excess solids from the boiler water, and shall include steam condensate from boiler operations but does not include boil-out or boiler acid cleaning wastewater.

"Boil-out" means wastewater and waste alkaline cleaning solution generated from hot alkaline cleaning to remove oil and grease, protective coatings or soil, performed as maintenance on a boiler or performed on a new boiler prior to operation.

"Certified Hazardous Materials Manager" or "CHMM" means a person who has gained recognition as a CHMM in accordance with the requirements developed and administered by the Institute of Hazardous Materials Management.

"Clean water" means water which in the judgment of the Commissioner is of a quality substantially similar to that occurring naturally in the receiving stream under consideration. Clean water may include minor cooling waters, residential swimming pool water, and stormwater.

"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.

"CFR" means the Code of Federal Regulations.

“Chemical liquids” means chemical liquids as defined by section 22a-448 of the Connecticut General Statutes.

“Commissioner” means the Commissioner as defined by section 22a-2(a) of the Connecticut General Statutes.

“Condensate” means the product of the physical process in which water is removed from a vapor or vapor mixture (e.g., pipe sweat).

“Contact cooling and heating wastewater” means water which, for the purpose of heat transfer, comes directly into contact with a product or manufacturing process.

“Day” means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

“Department” or “DEEP” means the Department of Energy and Environmental Protection.

“Discharge” means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution as defined in section 22a-423 of the Connecticut General Statues.

"DMR" means Discharge Monitoring Report.

“Drinking water treatment plant wastewater dispersal structure” means a structure, excavation or other facility designed to direct low flow drinking water treatment plant wastewater to percolate into the underlying soil. Drinking water treatment plant wastewater dispersal structures include but are not limited to stone filled excavations, leaching trenches, plastic leaching chambers, leaching galleries, leaching pits, etc.

“Effluent limitation” means (1) any numerical limitation imposed by the commissioner on quantities, discharge rates or concentrations of any water, substance or material discharged to the waters of the State or (2) any limitation imposed by the commissioner on any other measure of the quality or quantity of the discharge.

“Emerging contaminants” means a chemical or material characterized by a perceived, potential, or real threat to human health or the environment or by a lack of published health standards. A contaminant also may be "emerging" because of the discovery of a new source or a new pathway to humans.

“Federal Water Pollution Control Act” means the federal Water Pollution Control Act, 33 USC Section 466 et seq.

“Facility” means any facility at which an authorized discharge originates.

“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.

“Filtration” means a physical, chemical or biological process that reduces concentrations of contaminants in water by passing it through filter media.

"Fire suppression system testing" means wastewater generated by the testing or maintenance of a fire sprinkler or suppression system and does not include foams or other fire-fighting additives.

"Geothermal heat pump" means a central heating and/or cooling system that transfers heat to or from ground water.

"Ground waters" means those waters of the state which naturally exist or flow below the surface of the ground.

"Hydrostatic pressure testing" means waters used to test the structural integrity of new tanks and pipelines, and tanks and pipelines which have been used to hold or transfer drinking water, sewage, petroleum, or natural gas.

"Hydrant flushing" means waters generated from the flushing of hydrants in order to remove accumulated rust and sediment from the pipes and water mains, assess water flow and pressure and to examine conditions of the water distribution system to determine any needed improvements.

"Impaired water(s)" means those surface waters of the state designated by the Commissioner as impaired pursuant to Section 303(d) of the federal Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

"Intermittent Discharge" means an effluent discharge lasting less than 24 hours occurring at a maximum of once every three months for a total 4 discharges a calendar year.

"In responsible charge" means (A) when used in the Qualified Professional Engineer definition in this general permit, professional experience for which the Commissioner determines that a professional's primary duties consistently involve a high level of responsibility and decision making in the planning and designing of engineered systems for the treatment of sanitary, industrial, and commercial wastewaters. The Commissioner shall consider the following in determining whether a professional's experience qualifies as responsible charge experience:

1. the level of independent decision-making exercised;

2. the number of individuals and the disciplines of the other professionals that the professional supervised or coordinated;

3. the extent to which a professional's responsibilities consistently involved the review of work performed by other professionals involved in the planning and designing of engineered systems or the planning and compliance certification of pre-engineered systems for the treatment of sanitary, industrial, and commercial wastewaters;

4. the extent to which a professional's responsibilities consistently involved the planning and designing of engineered systems or the planning and compliance certification of pre-engineered systems for the treatment of industrial and commercial wastewaters and whether such responsibilities were an integral and substantial component of the professional's position;

5. the nature of a professional's employer's primary business interests and the relation of those interests to planning and designing of engineered systems or the planning and compliance certification of pre-engineered systems for the treatment of industrial and commercial wastewaters;

6. the extent to which a professional has engaged in the evaluation and selection of scientific or technical methodologies for planning and designing of engineered systems or the planning and compliance certification of pre-engineered systems for the treatment of industrial and commercial wastewaters;

7. the extent to which a professional drew technical conclusions, made recommendations, and issued opinions based on the results of planning and designing of engineered systems or the planning and compliance certification of pre-engineered systems for the treatment of industrial and commercial wastewaters; and

8. any other factor that the Commissioner deems relevant.

"Individual permit" a permit issued to a named permittee under section 22a-430 of the Connecticut General Statutes.

"Instantaneous limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In-stream waste concentration" or "IWC" means the concentration of a discharge in the receiving water after mixing has occurred in the allocated Zone of Influence.

"Land application" means the discharge of partially treated wastewater directed to the surface of the ground that is wholly absorbed by the soil and infiltrates into ground water.

"Licensed waste transporter" means a commercial waste transporter licensed by the Commissioner under the authority of section 22a-454(a) of the Connecticut General Statutes.

"Local building official" means the municipal officer or other designated authority charged with the administration and enforcement of the State Building Code in accordance with section 29-253 of the Connecticut General Statutes or a duly authorized representative.

"Low flow drinking water treatment plant wastewater" or "LFDWTPW" for the purpose of this general permit means:

1. A maximum of 500 gallons per day of wastewater generated by a point of entry water treatment device for the treatment of well water used to supply potable water to a residential building or institution or a non-residential building;
2. Where the treated water is not purchased by another party;
3. Does not include discharges from treatment system components for the removal of radionuclides; and
4. The discharge does not fall under the jurisdiction of the CT Department of Public Health.

“Maximum concentration” means the maximum concentration at any time as determined by a grab sample.

“Maximum Contaminant Level” or “MCL” means the maximum permissible level of a contaminant in water that is delivered to any consumer of a private water supply system or public water system as determined by sections 19-13-B101 and 19-13-B102 of the Regulations of Connecticut State Agencies.

“Maximum daily flow” means the greatest volume of wastewater that is discharged during an operating day.

“Maximum instantaneous flow” means the maximum flow at any time as measured in gallons per minute.

“Municipality” means any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough, village, fire and sewer district, sewer district and each municipal organization having authority to levy and collect taxes or make charges for its authorized function as defined by section 22a-423 of the Connecticut General Statutes.

"No Observable Acute Effect Level” or “NOAEL" means the highest concentration of a substance or combination of substances which does not cause acute toxicity to aquatic organisms.

“Non-contact cooling" means wastewater which has been used for cooling purposes, does not come into direct contact with a product or process, and has a maximum daily flow of no greater than 500,000 gallons per day. This definition does not include air compressor condensate or blowdown from boiler equipment.

“Non-point source” means any unconfined and diffuse source of pollution such as stormwater or snowmelt runoff, atmospheric deposition, or ground water not conveyed to a surface water discharge point within a discrete conveyance.

“Nonresidential building” means any commercial, industrial, institutional, public or other building not occupied as a dwelling, including transient hotels and motels.

"NPDES permit" means a permit authorizing a discharge to the surface waters of the state either directly, or indirectly by means other than through a POTW or the ground waters, which is issued by the Commissioner pursuant to section 22a-430 of the Connecticut General Statutes.

“Oil or petroleum” means oil or petroleum as defined in section 22a-448 of the Connecticut General Statutes.

“Permittee” unless the context indicates otherwise, means any person who or municipality which initiates, creates, originates or maintains a discharge of wastewater under the authority of this general permit.

“Person” means person as defined by section 22a-2(c) of the Connecticut General Statutes.

“Point source” means any discernible, confined and discrete conveyance, including but not limited to

any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include agricultural stormwater discharges and return flows from irrigated agriculture.

"Pollutant" or “Parameter” means any water, substance or material for which the permit in question specifies an effluent limitation.

“Potable water system maintenance or sampling wastewaters” means 1) potable water storage tank or water line draining for maintenance or hydrostatic testing purposes or 2) raw or treated water from process sampling points, on-line process analytical instrumentation; or 3) raw or treated water from equipment leakage and bleed-off.

“POTW” means a publicly owned treatment works, also known as a sewage treatment plant, as that term is defined by section 22a-430-3(a) of the Connecticut General Statutes.

“POTW authority” means the chairperson, or duly authorized representative, of the Water Pollution Control Authority which owns or operates a Publicly Owned Treatment Works (POTW).

"Pressure sashing" for the purpose of this general permit shall mean the hydraulic cleaning of structures and other hard surfaces, including but not limited to masonry, metals and concrete, without the use of chemical or biological agents. Most often used in washing dirt, graffiti or oily or atmospheric deposits from the exterior of buildings, cooling towers, bridges, sidewalks or gas station pads, this definition does not include the washing of vehicles (with the exception of boats and construction equipment), trailers or tank interiors or the chemical stripping of paint (with the exception of graffiti removal).

“Professional Engineer” or “P.E.” means a person with a currently effective license issued in accordance with Chapter 391 of the Connecticut General Statutes.

“Publicly Owned Treatment Works (POTW)” means a system used for the collection, treatment and/or disposal of sewage from more than one lot as defined in section 22a-430-1 of the Regulations of Connecticut State Agencies which discharges to the waters of the state and which is owned by a municipality or the state.

“Public water system” means public water system as defined in section 19-13-B102(a) of the Regulations of Connecticut State Agencies.

“Qualified Professional” means a professional engineer who has, for a minimum of eight years, engaged in the planning and designing of engineered systems for the collection and treatment of sanitary, industrial and commercial wastewaters including, but not limited to, a minimum of four years in responsible charge of the planning and designing of such engineered systems.

"Quarter” or “Quarterly” means the calendar quarter beginning at 12:00 a.m. on the first day of January, April, July and October and ending at 12:00 a.m. on the first day of April, July, October and January, respectively.

“RCSA” means 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 files a registration pursuant to Section 3 of this general permit.

"Registration" means a registration form filed with the Commissioner pursuant to Section 3 of this general permit.

"Residential building" means any house, apartment, condominium, trailer or mobile home, or other structure occupied by individuals permanently or temporarily as a dwelling place but not including residential institutions.

"Residential institution" means any institutional or commercial building occupied by individuals permanently or temporarily as a dwelling, including dormitories, boarding houses, hospitals, nursing homes, jails, and residential hotels or motels.

"Residuals" for the purpose of this general permit means the solid or semi-solid residue removed during the production of potable water with a solids content of 2% or greater.

"Semi-annually" means two times per calendar year, where the calendar years begins at 12:00 a.m. on the first day of January and ends at 12:00 p.m. on the last day of December.

"Seven-day, ten-year low flow" or "7Q10" means the lowest seven consecutive-day mean stream flow with a recurrence interval of ten years.

"Site" means geographically contiguous land or water on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water 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.

"Sufficiently sensitive" means using a sufficiently sensitive analytical method as defined in 40 CFR §122.44(i)(1)(iv).

"Surface waters" means those waters of the state which are not ground water and the waters of Long Island Sound, its harbors, embayments, tidal wetlands and creeks; rivers and streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, federal jurisdictional wetlands, and other natural or artificial, public or private, vernal or intermittent bodies of water. Surface water does not include ground water.

"Total Maximum Daily Load or (TMDL)" means the maximum capacity of a surface water to assimilate a pollutant as established by the Commissioner, including pollutants contributed by point and non-point sources and a margin of safety.

"Unsewered area" means an area that does not have direct access to a POTW by means of a permanent

sewer line.

“Watercourse” means watercourse as defined in section 22a-38 of the Connecticut General Statutes.

“Water Pollution Control Authority” means water pollution control authority as referred to in Chapter 103, Title 7.

“Water quality standards” means water quality standards as adopted by the Commissioner in accordance with section 22a-426 of the Connecticut General Statutes.

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

“Water treatment laboratory wastewater” means raw water samples, finished (drinking) water samples, other water treatment laboratory wastewaters, and/or laboratory utensil cleaning wastewaters which have 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.

“Water treatment wastewaters” 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:

1. clarifier tank sludge blowdown;
2. clarifier tank supernatant;
3. facility and equipment cleaning rinsewaters, excluding rinsewaters generated by the rinse out of containers used to store any chemical for which an effluent limit is not specified in this general permit;
4. activated carbon and filter media backwash, including filter to waste, and regeneration wastewaters;
5. raw or treated water from equipment leakage and bleed-off;
6. mechanical and non-mechanical sludge dewatering wastewaters;
7. infiltration bed and settling lagoon wastewaters;
8. raw or treated water from process sampling points and on-line process analytical instrumentation;
9. designed overflows from storage tanks and other WTW facilities resulting from emergency conditions and routine maintenance;
10. potable water system maintenance or sampling wastewaters;
11. start-up wastewaters for water treatment plants, facilities or equipment which commenced operation after the date of issuance of this general permit;
12. ion exchange regeneration wastewaters;
13. reverse osmosis reject water;
14. laboratory wastewaters, and
15. Low flow water treatment wastewater.

“Well rehabilitation” means to physically or chemically treat a well to remove chemical or biological residues from the well screen(s), annular space, sand pack, and native materials immediately adjacent to the well to return the well to its design function.

Connecticut
Department of Energy &
Environmental Protection

Comprehensive General Permit for Discharges to Surface and Ground Water

Fact Sheet

This fact sheet sets forth the significant factual, legal, and policy considerations examined during preparation of this draft master general permit. This action has been prepared in accordance with the Connecticut State Statutes and its implementing regulations, the Regulations of Connecticut State Agencies. Issuance of a general permit serves to simplify and streamline the National Pollutant Discharge Elimination System ("NPDES") and state ground water permitting process by authorizing multiple similar activities under one permit in lieu of each facility having to obtain an individual permit. This general permit provides permit conditions and limitations to protect waters of the State from pollution.

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1.0 General Permit History & Authority

In 1965, the Connecticut Clean Water Task Force was commissioned to investigate the condition of rivers and harbors in Connecticut. The Connecticut Clean Water Task Force developed an action program called Clean Water for Connecticut in 1966. On May 1, 1967, Connecticut's Clean Water Bill was signed into law, inaugurating the state's modern water pollution control program. The Connecticut Water Quality Standards were then approved by the federal government in 1970. A year later the Department of Environmental Protection was created, and Congress began drafting the federal legislation for the first national Clean Water Act using Connecticut's Clean Water Act as a guide.

Congress passed the Federal Water Pollution Control Act of 1972 ("Clean Water Act" or "CWA") on October 18, 1972, 33 U.S.C. 1251 et seq., with the objective to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" section 101(a), 33 U.S.C. 1251(a). To help achieve this objective, the CWA provides that "the discharge of any pollutant by any person shall be unlawful" except in compliance with other provisions of the statute, CWA section 301(a), 33 U.S.C. 1311(a).

Pursuant to the CWA and Title 22a 430 of the Connecticut General Statutes, any person who initiates or creates a discharge of pollutants to the waters of the state must first obtain a permit authorizing the discharge. The Connecticut Department of Energy and Environmental Protection ("DEEP") is a delegated authority to implement the federal National Pollutant Discharge Elimination System ("NPDES") Program. In accordance with this delegation, DEEP has been provided the authority to promulgate regulations and issue permits in accordance with the Connecticut General Statutes ("CGS") and Regulations of Connecticut State Agencies ("RCSA").

DEEP is authorized to administer a Pretreatment Program pursuant to 40 Code of Federal Regulations ("CFR") Part 403 in accordance with section 22a-430 of Chapter 446k of the CGS and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and a modified Memorandum of Agreement (MOA) dated June 3, 1981, by the Administrator of the United States Environmental Protection Agency.

The *Comprehensive General Permit for Discharges to Surface Water and Ground Water* ("Comprehensive general permit") provides discharge authorizations in a single permit for wastewater discharge categories whose discharge authorizations were previously provided by separate general permits for each discharge category. DEEP issued the first Comprehensive GP December 14, 2017, which became effective March 30, 2018, (and will hereafter be referred to in this document as the "2018 general permit"). The current Comprehensive GP was reissued March 15, 2023, without revisions, became effective April 1, 2023, and will expire April 1, 2025. The draft general permit is expected to become effective April 1, 2025 (and will hereafter be referred to in this document as the "2025 general permit").

2.0 Authorization Under This General Permit

The Comprehensive GP provides discharge authorizations for the following categories of wastewater as each is defined in "Section 9. General Definitions" of the general permit:

- Non-contact cooling water
- Geothermal heat pump water
- Water treatment wastewater
- Hydrostatic pressure testing of natural gas, petroleum tanks, and pipeline water
- Fire suppression system testing water
- Hydrant flushing water
- Boiler blowdown water
- Pressure washing water

Most of these wastewater categories can be discharged to Classes AA, A, SA, and SB surface waters as well as to ground water through various conveyance pathways provided the permittee complies with the permit conditions and effluent limits in the permit. Authorized discharge locations can be found in Table 2.1 of the general permit.

Table 2.1—Authorized Discharge Locations Based on Category of Discharge

Category of Discharge	Ground Water Classification	Surface Water Classification
Non-Contact Cooling	All	All
Geothermal Heat Pump	All	All
Water Treatment	All	All
Hydrostatic Pressure Testing of Natural Gas and Petroleum Tanks/Pipelines	Not Authorized	A, SA, B, SB
Fire Suppression System Testing	All	All
Hydrant Flushing	All	All
Boiler Blowdown	All	Not Authorized
Pressure Washing	All	All

3.0 Discharges to Impaired Waters or Waters with Total Maximum Daily Loads (TMDL)

Discharges directed to an impaired waterbody that is listed in the most recent Connecticut Integrated Water Quality Report pursuant to Clean Water Act section 303(d) and 305(b) must comply with the requirements listed in Section 2.2.9 of this general permit. Discharges to an impaired water must provide additional documentation to the Commissioner that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard(s) that caused the impairment. The Commissioner may require additional control measures for discharges to impaired waterbody segments or other sensitive areas.

For discharges to waters with an established TMDL, the Commissioner will determine if there are sufficient remaining allocations in the TMDL to allow the discharge and the Commissioner may authorize the discharge with additional permit conditions or compliance schedules designed to meet the requirements of the TMDL or load allocation.

4.0 Significant Changes to the General Permit

4.1. Instream Waste Concentration Limit Removed
The 2018 general permit contained an eligibility restriction base on the instream waste concentration of the discharge. In that permit, a permittee that had an instream waste concentration of greater than 15% was ineligible for the general permit and was required to apply for an individual NPDES discharge permit. The 2025 general permit was expanded to include additional permit limits to protect the instream water quality standards at all IWCs. The 2025 general permit includes numeric effluent limits for instream waste concentrations of 0 - 5%, > 5% - 20%, > 20% - 40%, > 40% - 70%, and > 70% - 100%.

4.2. Structural Change in How General Permit Information is Presented
The discharge categories, permit conditions, and limits in the 2025 general permit are predominantly the same as those in the 2018 general permit. The general permit includes a modernized format and layout. The permittee is better able to navigate the permit terms and conditions based on their industrial category (e.g. non-contact cooling, hydrostatic pressure testing, etc.) and their final discharge location (surface or ground water). The permittee can now proceed to a specific section of the general permit that will provide them with specific permit conditions, numeric effluent limits, and monitoring requirements.

4.3. Pressure Washing Added as a Discharge Category
The industrial category of Pressure Washing has been added to the 2025 general permit. Discharge to sanitary sewer is the preferred discharge option for any pressure washing discharges, but if access to sanitary sewer is not available or the permittee is unable to collect and dispose of the discharge at a POTW, the user may discharge to the ground or surface water in accordance with the permit terms and conditions.

4.4. NetDMR Reporting of all Monitoring Results for Discharges Requiring Registration
The 2018 general permit only required registered permittees with discharges to surface water to report monitoring results through NetDMR. The 2025 general permit requires all registered permittees to report monitoring results through NetDMR regardless of the discharge location.

4.5. Compliance Schedule for Installation of Monitoring Wells
The 2025 general permit requires water treatment discharges to ground water to submit a plan within three (3) years of the effective date of the general permit for the installation of ground water monitoring wells

to assess the impact of the discharge on ground water. The wells must be installed by the end of the five-year term.

5.0 Registration Requirements

5.1 Obtaining Authorization to Discharge under this General Permit
Authorization to discharge under this general permit is either automatic (provided the permittee meets all eligibility requirements of the permit) or must be obtained by submitting a complete registration and receiving an Approval of the Registration from the Commissioner. Table 3.1 provides a complete summary of registration requirements for each category of discharge.

Table 3.1—Registration and Fee Requirements
(Note: This table is solely provided as a summary of the registration requirements)

Discharge Category	Discharge Location	Maximum Daily Flow (gpd)	Registration	Fee[1]
Non-Contact Cooling	Surface Water	500,000	Yes	$1250
	Ground Water	< 5,000	No	NA
		≥ 5,000	Yes	$1250
Geothermal Heat Pump	Surface Water	500,000	Yes	$1250
	Ground Water	< 5,000	No	NA
		≥ 5,000	Yes	$1250
Water Treatment	Surface Water	2,000,000	Yes	$1250
	Ground Water	< 500	No	NA
		≥ 500	Yes	$1250
Hydrostatic Pressure Testing of Natural Gas/Petroleum Tanks and/or Pipelines	Surface or Ground Water	500,000	Yes	$1250
Fire Suppression System Testing	Surface or Ground Water	500,000	No	NA
Hydrant Flushing	Surface or Ground Water	500,000	No	NA
Boiler Blowdown	Ground Water	< 5,000	No	NA
Pressure Washing	Surface or Ground Water	500,000	No	NA

5.2. Wastewater Screening
Wastewater screening will be required for emerging contaminants and any pollutants that may be considered toxic, hazardous, or detrimental to any use of the watercourse designated pursuant to Connecticut's Water Quality Standards into which such wastewater is or will be discharged if the emerging contaminants or pollutants are reasonably known to be present, to have been handled, stored, released, or disposed of at the site where the subject wastewater originates.

The requirements in the current general permit to screen existing drinking water treatment plant wastewater and noncontact cooling water for nitrogen, phosphorus, or bacteria have been modified.

5.3. Professional Certifications
Professional certifications by a Qualified Professional as defined in the general permit will continue to be required for all registrations.

5.4 Registration Modification
If a permittee with an existing authorization under this general permit seeks to modify the conditions or numeric effluent limits of the approved discharge, a modified registration form must be submitted to DEEP prior to the modification occurring. If the modification is approvable the permittee must obtain a Modified Approval of Registration from DEEP prior to any expansion, alteration, or modification that may result in (1) a change to the nature of the activity generating the discharge (2) the introduction of a new source of discharge; (3) the introduction of a new pollutant that was not present in a discharge at the time of registration; (4) an increase in the maximum daily flow, or (5) a relocation of the discharge to a different receiving water. Contents of a modified application are described in Section 3.8 of the general permit.

Treatment system modifications to meet the permit terms and conditions do not require DEEP approval, contingent on the permittee's compliance with the general permit. The permittee must notify the Commissioner at least 30 days prior to altering its wastewater collection or treatment system, or its method of operation as described in Section 3of the general permit.

5.5. Termination of Discharge
Permittees that require a submission of a registration, must submit a Notice of Termination to the Commissioner on a prescribed form within 14 days of the cessation of the discharge.

6.0 Pollutants of Concern Identified for Industrial Categories Covered Under the General Permit

6.1. Temperature
Temperature is a primary pollutant of concern for noncontact cooling water and geothermal heat pump water. The 2018 general permit required weekly temperature monitoring of the discharge and monthly temperature monitoring of the upstream and downstream receiving waterbody for the first time.

6.2. pH
The pH limit of 6.0 - 9.0 standard units has been carried forward in general permits. This range is protective of the instream water quality standards and is carried forward in 2025 general permit.

6.3 Total Suspended Solids (TSS)
Another pollutant common to all of the waste streams covered by this general permit is total suspended

solids (TSS). TSS forms in noncontact cooling water as calcium and magnesium precipitate forms colloidal solids from the rise in temperature of the noncontact cooling water once it contacts a surface with a temperature hotter than the temperature of the source water. All of the water treatment processes and associated wastewater processes are designed to remove suspended material from potable water and wastewater. For theses discharges to surface water, DEEP is carrying forward the TSS effluent limits of 20 mg/L (Instant Maximum) as a technology-based effluent limit in the permit to meet the requirements of best control technology/best available technology ("BCT/BAT"). Discharges to ground water do not have a TSS limit as solids will immediately adsorb to soil particles once the discharge enters the ground.

6.4 Metals

Conventional metal pollutants have been included in the numeric effluent limit tables and in monitoring requirements to determine the extent of pollutant partitioning which results from the treatment process. Each metal in the numeric effluent limit tables is discussed below.

6.5 Aluminum

Although aluminum is included in each of the numeric effluent limit tables for each subcategory of discharge, its presence in drinking water treatment plant wastewater is most significant. Many of the drinking water treatment plants use aluminum compounds (e.g. aluminum sulfate, also known as "alum", or polyaluminum chloride) as coagulants to remove suspended solids and other impurities. As these coagulated compounds grow in size, they gain mass and eventually settle to the bottom of the tanks they are found in. Some treatment systems at water treatment plants that discharge to a POTW remove the sediments continuously from the bottom of the tank without the need to drain the basin. Drinking water treatment plants that discharge to ground or surface water allow the supernatant to drain off to maximize sediment (and, thus, aluminum) removal.

In 2018, EPA updated its national Clean Water Act Section 304(a) recommendations for freshwater aquatic life criteria for aluminum. These recommendations advised that numeric effluent limits for aluminum should be calculated using site-specific receiving water characteristics such as pH, total hardness, and dissolved organic carbon. This method can be used in an individual permit, but because the numeric effluent limits in the 2025 general permit must apply to receiving waters across the state of Connecticut where these receiving water characteristics vary greatly, site-specific water chemistry could not be considered when calculating numeric effluent limits. DEEP is continuing to collect data to inform the development of state specific water quality criteria.

6.6. Manganese

Manganese is a naturally occurring metal commonly found in ground water sources throughout Connecticut. Any of the discharge categories using ground water as a source wastewater are likely to contain manganese in the discharge.

6.7. Iron

Iron, like manganese, is a naturally occurring metal commonly found in ground water sources throughout Connecticut. Like manganese, any of the discharge categories using ground water as a source wastewater are likely to contain manganese in the discharge. Additionally, iron salts are the active ingredients in some coagulants. As noted in the Drinking Water Treatment Plant Residuals Management Technical Report (EPA 820-R-11-003), iron was listed as a pollutant of concern for certain drinking water treatment plants. The limit of 3.0 mg/l for both discharges to surface water and ground water has been carried forward as a technology-based limit in the permit to meet the requirements of best control technology/best available technology (BCT/BAT).

Iron/manganese may be present in water as colloidal iron/manganese, soluble ferrous iron/manganese, or a chelated compound. Colloidal iron/manganese can be removed by coagulation, flocculation and precipitation or filtration. Removal of soluble ferrous iron/manganese and chelated compounds requires oxidation to form a precipitate. Oxidation can be accomplished by aeration, chlorine, hypochlorites, chlorine dioxide, or potassium permanganate (KMnO4). Adjusting the pH optimizes the precipitation by balancing solubility and oxidation potential.

6.8. Copper/Lead

Copper and lead are often found in wastewater due to their presence in conveyance systems and the connecting parts of those conveyance systems. The source of the copper is often the copper pipes and brass fittings that the source water or process water flows through. The source of the lead can be the solder used to connect the pipes or possibly even pipes used to convey the source water. Homes, commercial businesses and factories built before 1940 may have lead service lines that connect them to public water. Plumbing systems built before 1986 may have lead parts. New "lead free" pipes and plumbing parts may still contain 0.25% lead. Brass parts may also contain some lead.

Because acidic water is more likely to leach copper and lead from the conveyance systems they are in, drinking water treatment plants will usually add an alkaline solution to the water before it flows to the distribution system to ensure the pH of the water is more on the caustic side of the pH scale. Additionally, water treatment plant wastewater can exhibit copper due to copper based chemicals used as an algicide in drinking water reservoirs. Boiler blowdown also contains higher levels of copper and lead in wastewater and is only authorized to discharge to ground water in this general permit.

6.9. Zinc

The common source of zinc in water is the corrosion of galvanized metal. Water having high concentrations of total dissolved solids or chlorides will also dissolve zinc from galvanized metal. Elevated levels of dissolved solids and chlorides increases the electrical conductivity of the water, making it easier for the chemical reactions involved in corrosion to occur.

Zinc Orthophosphate is a commonly used corrosion inhibitor in municipal and well water treatment applications. This corrosion inhibitor is particularly important because it aids in prevention of lead leaching from the pipes into the water distribution network.

6.10. Total Residual Chlorine

Chlorine is added to water at drinking water treatment plants for disinfection purposes. EPA and public health departments require some residual chlorine in the distribution system to ensure the water remains free from bacteria, microbes, and other organisms. EPA's National Primary Drinking Water Regulations allow up to 4 mg/l of chlorine in drinking water as the Maximum Residual Disinfectant Level (MRDL).

Chlorine is toxic to vertebrates and invertebrates at very low concentrations and dechlorination is required to meet the total residual chlorine effluent limits prior to discharges to ground and surface water.

7.0 Technology Based Effluent Limitations

Technology-based treatment requirements represent the minimum level of control that must be imposed under CWA § 301(b) and 402 to meet best practicable control technology currently available ("BPT") for conventional pollutants and some metals, best conventional control technology ("BCT") for conventional

pollutants, and best available technology economically achievable ("BAT") for toxic and non-conventional pollutants. *See* 40 CFR § 125 Subpart A and RCSA Section 22a-430-4(l)(4)(A).

Subpart A of 40 CFR § 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under § 301(b) of the CWA, including the application of EPA promulgated Effluent Limitation Guidelines ("ELGs") and case-by-case determinations of effluent limitations under CWA § 402(a)(1). EPA promulgates New Source Performance Standards (NSPS) under CWA § 306 and 40 CFR § 401.12. *See also* 40 CFR § 122.2 (definition of "new source") and 122.29. In the absence of published technology-based effluent guidelines, the permit writer is authorized under CWA § 402(a)(1)(B) and RCSA Section 22a-430-4(m) to establish effluent limitations on a case-by-case basis using best professional judgment ("BPJ").

8.0 Reasonable Potential Analysis and Water Quality Based Effluent Limits Calculation

Pursuant to CWA § 301(b)(1)(C) and 40 CFR § 122.44(d)(1), NPDES permits must contain any requirements in addition to Technology-Based Effluent Limits ("TBELs") that are necessary to achieve water quality standards established under § 303 of the CWA. *See also* 33 U.S.C. § 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including State narrative criteria for water quality." *See* 40 CFR § 122.44(d)(1)(i).

To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any water quality standard (WQS), EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. *See* 40 CFR § 122.44(d)(1)(ii).

If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain Water Quality Based Effluent Limits ("WQBELs") or require additional monitoring if there is insufficient data to develop a WQBEL, for that pollutant. *See* 40 CFR § 122.44(d)(1)(i).

8.1. Calculation of Numeric Effluent Limits

During the development of the 2025 general permit, DEEP performed a technical analysis of the numeric data from the Discharge Monitoring Reports ("DMRs") submitted since 2018. DMRs from permittees discharging noncontact cooling water and water treatment wastewater to surface water provided sufficient data to perform Reasonable Potential Analyses ("RPA") to produce WQBELs for these categories.

The 2018 and 2025 general permits require grab samples for monitoring noncontact cooling water and water. Due to the low availability of data, the Average Monthly Limit ("AML") calculated in the RPA is set as the Instantaneous Maximum Effluent Limit in the general permit. Results of the RPA produced similar effluent limits to those from the 2018 general permit. The effluent limit for manganese was developed using the new in stream criteria.

Evaluation of Whole Effluent Toxicity ("WET") data found mean No Observed Adverse Effect Level ("NOAEL") in undiluted samples at 94% for D. Pulex and 98% for Pimephales with median values of 100%. Based on this information, DEEP determined that most of the numeric effluent limits continue to

be protective of the waters of the state and therefore the most stringent values are carried forward from the previous permits.

8.2. Effluent Limits for Surface Water Discharges
The permit includes permit limits and conditions to meet all applicable narrative and numeric water quality standards, criteria and associated policies contained in Section 22a-426 of the RCSA, Connecticut Water Quality Standards. Numeric WQBEL were calculated for all parameters with an instream water quality criteria. Each parameter was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the IWC. These parameters and limits are included in the Numeric Effluent Limits tables of the general permit based on Instream waste Concentration.

8.3. Whole Effluent Toxicity
Discharges of noncontact cooling water or water treatment wastewater to surface water must monitor and meet whole WET limits at a frequency based on maximum daily discharge flow. WET testing shall be performed in accordance with Section 4.15 of the general permit. Acute aquatic toxicity monitoring shall be performed using the NOAEL protocol specified in section 22a-430- 3(j)(7)(A) of the RCSA and as prescribed in the reference document *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821- R-02-012), or the most current version, with any exceptions or clarifications noted in Section 4.15 of the general permit or prescribed by the Commissioner.

9.0 Changes to Each Industrial Category

Below is a summary of parameters included in this general permit and any changes made to permit limits from the previous iterations of the permit.

9.1 Non-Contact Cooling and Geothermal Heat Pump Discharges to Surface Water
The 2025 general permit defines "Non-contact cooling" as "wastewater which has been used for cooling purposes, does not come into direct contact with a product or process, and has a maximum daily flow of no greater than 500,000 gallons per day. This definition does not include air compressor condensate or blowdown from boiler equipment."

The 2025 general permit defines a "Geothermal heat pump" as "a central heating and/or cooling system that transfers heat to or from ground water." The wastewater produced is the wastewater after the pump has transferred the heat to or from the ground water. Non-contact cooling water and geothermal heat pump water are combined in this section because the effluent characteristics of the two wastewaters are nearly identical and the same conditions apply to both categories of wastewater.

The general permit contains conditions and prohibitions for non-contact cooling water and geothermal heat pump water discharges to surface water. The discharge must be comprised of once-through heat exchange system water to which no chemicals have been added for water conditioning. The source of the water can be uncontaminated ground water, a public source (often referred to as city water), or a surface water (preferably flowing sources such as a river or stream).

9.1.2 Numeric Effluent Limits

Noncontact cooling water or geothermal heat pump water may be discharged to surface water if the discharge complies with the following permit conditions and limits in Tables 4.1.2.1 and 4.1.2.2 below.

Table 4.1.2.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Noncontact Cooling Water or Geothermal Heat Pump Water to Surface Water

Parameter	Limit	Unit	Permit Limit Development
Flow	500,000	gpd	Limited by definition of noncontact cooling water
pH[1]	6.0 – 9.0	s.u.	WQBEL Carried forward from current permit
Aquatic toxicity, Daphnia, Pulex[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Pimephales promelas[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Mysidopsis bahia[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Menidia beryllina[2,3]	>90	percent	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons	5.0	mg/l	TBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Total Suspended Solids	20	mg/l	TBEL Carried forward from current permit
Temperature	100	°F	WQBEL Carried forward from current permit

Footnotes:

[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

[2] The results of the aquatic toxicity tests should be reported as percent survival of an undiluted sample in the effluent.

[3] For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24-hours old) Daphnia pulex and juvenile (1-14 days old, with no greater than a 24-hour range in age) Pimephales promelas as test organisms. For salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) Mysidopsis bahia and juvenile (9-14 days old, with no greater than a 24-hour range in age) Menidia beryllina as test organisms.

Table 4.1.2.2. Instantaneous Maximum Effluent Limits for Discharges of Noncontact Cooling Water or Geothermal Heat Pump Water to Surface Water by Instream Waste Concentration									
Parameter	**Instream Waste Concentration [1]**							**Units**	**Permit Limit Development**
	Reservoir & Lake	**0 to 5%**	**>5% to 20%**	**>20% to 40%**	**>40% to 70%**	**>70% to 100%**	**Intermittent Discharge**		
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	WQBEL calculated using RPA
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	WQBEL calculated using RPA
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	WQBEL calculated using RPA
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	WQBEL calculated using RPA
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	WQBEL calculated using RPA
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	WQBEL calculated using RPA

Footnotes:
[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven-day ten-year low flow of the receiving stream and multiplying the result by 100.

9.1.3 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.1.2.1 and 4.1.2.2. The frequency of parameter and aquatic toxicity monitoring are dependent on discharge flows according to Table 4.1.3 of the general permit. Discharges of non-contact cooling water also have a requirement to monitor the discharge for temperature weekly and the receiving waterbody temperature monthly. This information is provided as an attachment to the DMR.

9.2. Non-Contact Cooling and Geothermal Heat Pump Discharges to Ground Water

The general permit contains conditions and prohibitions for non-contact cooling water and geothermal heat pump water discharges to ground water. The discharge must be comprised of once-through heat exchange system water to which no chemicals have been added for water conditioning. The source of the water can be uncontaminated ground water, a public source (often referred to as city water), or a surface water (preferably flowing sources such as a river or stream).

9.2.1. Numeric Effluent Limits

Noncontact cooling water or geothermal heat pump water may be land applied to the ground, to a subsurface disposal system, or an infiltration basin provided the discharge complies with the limits in Table 4.2.2.1 below:

Table 4.2.2.1 — Maximum Limits for Discharges of Noncontact Cooling Water or Geothermal Heat Pump Water to Ground Water

Parameter	Maximum Limit	Unit	Permit Limit Development
Flow	500,000	gpd	Limited by definition of noncontact cooling water
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Lead, total	Monitor	mg/l	NA
Aluminum, total	1.5	mg/l	WQBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Manganese, total	3.0	mg/l	TBEL Carried forward from current permit
Copper, total	Monitor	mg/l	NA
Temperature	Monitor	°F	NA
Zinc, total	Monitor	mg/l	NA

9.2.2. Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.2.2.1. The frequency of parameter monitoring is dependent on discharge flows according to Table 4.2.3 in the general permit.

9.3. Water Treatment Wastewater Discharges to Surface Water

The 2025 general permit defines "water treatment wastewater" as 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:

- clarifier tank sludge blowdown;
- clarifier tank supernatant;
- facility and equipment cleaning rinsewaters, excluding rinsewaters generated by the rinseout of containers used to store any chemical for which an effluent limit is not specified in Section 4.2 or Section 4.4 of this general permit;
- activated carbon and filter media backwash, including filter to waste, and regeneration wastewaters;
- raw or treated water from equipment leakage and bleed-off;

- mechanical and non-mechanical sludge dewatering wastewaters;
- infiltration bed and settling lagoon wastewaters;
- raw or treated water from process sampling points and on-line process analytical instrumentation;
- designed overflows from storage tanks and other WTW facilities resulting from emergency conditions and routine maintenance;
- potable water system maintenance or sampling wastewaters;
- start-up wastewaters for water treatment plants, facilities or equipment which commenced operation after the date of issuance of this general permit;
- ion exchange regeneration wastewaters;
- reverse osmosis reject water;
- laboratory wastewaters, and
- Low flow water treatment plant wastewater.

The general permit contains conditions for water treatment plant wastewater discharges to surface water. The conditions common to most categories in the general permit that discharge to surface water include requirements related to aesthetic concerns, toxicity, temperature, and floor drains. The maximum daily discharge limit for water treatment plant wastewater to surface water has been expanded to 2,000,000 gallons per day along with protective effluent limits. The permit requires solids removal before discharge for certain types of water treatment plant wastewater to achieve the 20.0 mg/l effluent limit.

9.3.1 Numeric Effluent Limits

Water treatment plant wastewater may be discharged to surface water if the discharge complies with the following permit conditions and limits in Tables 4.3.3.1 and 4.3.3.2 below.

Table 4.3.3.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Drinking Water Treatment Plant Wastewater to Surface Water

Parameter	Limit	Unit	Permit Limit Development
Flow	2,000,000	gpd	NA
pH[1]	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Aquatic toxicity, Daphnia, Pulex[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Pimephales promelas[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Mysidopsis bahia[2,3]	>90	percent	WQBEL Carried forward from current permit
Aquatic toxicity, Menidia beryllina[2,3]	>90%	percent	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons	5.0	mg/l	TBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Total Suspended Solids		mg/l	TBEL Carried forward from current permit
Total Dissolved Solids	Monitor	mg/l	NA

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.
[2] The results of the aquatic toxicity tests should be reported as percent survival of an undiluted sample in the effluent.
[3] For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24-hours old) Daphnia pulex and juvenile (1-14 days old, with no greater than a 24-hour range in age) Pimephales promelas as test organisms. For

salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) Mysidopsis bahia and juvenile (9-14 days old, with no greater than a 24-hour range in age) Menidia beryllina as test organisms.

Table 4.3.3.2. Instantaneous Maximum Effluent Limits for Discharges of Drinking Water Treatment Plant Wastewater to Surface Water by Instream Waste Concentration

Parameter	Instream Waste Concentration [1]								
	Reservoir & Lake	0 to 5%	>5% to 20%	>20% to 40%	>40% to 70%	>70% to 100%	Intermittent Discharge	Units	Permit Limit Development
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	WQBEL calculated using RPA
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	WQBEL calculated using RPA
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	WQBEL calculated using RPA
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	WQBEL calculated using RPA
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	WQBEL calculated using RPA
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	WQBEL calculated using RPA

Footnotes:

[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

9.3.2 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.3.3.1 and 4.3.3.2. The frequency of parameter and aquatic toxicity monitoring are dependent on discharge flows according to Table 4.3.4.1 in the general permit.

9.4 Water Treatment Plant Wastewater Discharges to Ground Water

The general permit contains prohibitions for water treatment plant wastewater discharges to ground water including facility and equipment cleaning rinsewaters containing detergents or surfactants, water treatment plant laboratory wastewaters greater than 500 gpd, start-up wastewaters from drinking water treatment plant wastewater facilities which contain detergents or surfactants, regeneration and backwash wastewaters from sodium chloride ion exchange units, activated carbon backwash and regeneration wastewaters for filters which treat for volatile organic

compounds, and clarifier tank sludge blowdown to a subsurface disposal system.

The general permit contains conditions for water treatment plant wastewater discharges to ground water including a limit on discharges to a subsurface disposal system of 50,000 gallons per day and a requirement for solids removal for clarifier tank sludge blowdown, greensand filter ion exchange regeneration wastewaters, and filter media backwash and regeneration wastewaters in order to achieve the total suspended solids limit of 20.0 mg/l.

Other conditions require that discharge lagoons be constructed and maintained above the 100-year base flood elevation and a prohibition on stormwater runoff to any wastewater treatment lagoons or beds Certain design criteria require minimum separating distances between a disposal system and any potable water supply well based on yield from the public well. Other design criteria require minimum depths between the bottom of a lagoon and underlying bedrock or the seasonal high ground water table. Other conditions prevent interference between discharges of water treatment plant wastewater and another subsurface disposal system.

9.4.1 Numeric Effluent Limits

Drinking water treatment plant wastewater may be land applied to the ground, to a subsurface disposal system, or an infiltration basin provided the discharge complies with the limits in Table 4.4.3.1 below:

Table 4.4.3.1 — Maximum Limits for Discharges of Drinking Water Treatment Plant Wastewater to Ground Water

Parameter	Maximum Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Lead, total	Monitor	mg/l	NA
Lead, dissolved	Monitor	mg/l	NA
Aluminum, total	1.5	mg/l	TBEL Carried forward from current permit
Aluminum, dissolved	Monitor	mg/l	NA
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Iron, dissolved	Monitor	mg/l	NA
Manganese, total	3.0	mg/l	WQBEL Carried forward from current permit
Manganese, dissolved	Monitor	mg/l	NA
Copper, total	Monitor	mg/l	NA
Zinc, total	Monitor	mg/l	NA

Parameter	Maximum Limit	Unit	Permit Limit Development
Zinc, dissolved	Monitor	mg/l	NA
Temperature	Monitor	°F	NA

9.4.2 Monitoring
The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.4.3.1. The frequency of parameter monitoring is dependent on discharge flows according to Table 4.4.4 of the general permit.

9.4.3 Monitoring Location
The 2018 general permit did not specify a clear location of where the grab sample for water treatment plant discharges to ground water should be taken. As a result, monitoring data collected from a request to permittees yielded inconsistent results because the samples were collected at varying locations at each facility. The 2025 general permit clearly indicates that "The sample shall be collected at the end of the discharge pipe before the discharge enters the infiltration basin, subsurface disposal system, or ground surface."

9.4.4 Sample Type
The 2018 general permit instructed permittees that "Samples collected shall be prepared by settling of solids and filtration through a 0.45 uM filter prior to analysis." Oral history within the division provided that this filtration method was incorporated to simulate the percolation of the wastewater through the soil matrix. It was theorized that solids would adsorb to soil particles and just dissolved substances would infiltrate to groundwater. However, this method is not supported by 40 CFR 136, the EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants. In the 2025 general permit, permittees monitor for both total and dissolved metals.

9.4.5 Ground Water Monitoring Wells & Compliance Schedule
The 2025 general permit includes a compliance schedule that requires permittees discharging water treatment wastewater to ground water to submit a plan for the installation of monitoring wells that will be used as the ground water compliance location. Well design and installation must be in accordance with the EPA Guidance Document titled "Design and Installation of Monitoring Wells," document number SESDGUID-101-RO, effective February 18, 2018. The plan should include a potentiometric surface map to determine the location of at least one (1) upgradient monitoring well to determine background concentrations and sufficient downgradient monitoring wells at the edge of the property boundary based on groundwater hydrology.

The compliance schedule also requires that within 54 months of the effective date of this general permit, the permittees must install the monitoring wells described in the plan they submitted. The monitoring wells will be used to monitor ground water discharge compliance during the term following the term of this general permit.

9.5. Petroleum and Natural Gas Hydrostatic Pressure Testing Discharges to Surface Water

The 2025 general permit defines "Hydrostatic pressure testing" as "waters used to test the structural integrity of new tanks and pipelines, and tanks and pipelines which have been used to hold or transfer drinking water, sewage, petroleum, or natural gas." This general permit specifies petroleum and natural gas tanks because these tanks represent the majority of tanks tested and the petroleum-based pollutants that could be present in the tank pose a greater environmental risk than tanks holding just water or sewage. Water is used to test the structural integrity of the tanks before placing the tank back into service because, if a leak is found, it is much easier and less expensive to discharge just the wastewater rather than empty and temporarily store the product the tank might have been holding.

Conditions for the discharge of petroleum and natural gas hydrostatic pressure testing discharges to surface water include common requirements pertaining to aesthetics, toxicity, temperature, and a prohibition against the use of toxic chemicals listed in the Regulations of Connecticut State Agencies.

Unique to the petroleum and natural gas hydrostatic testing category are requirements for a thorough cleaning of the interior of tanks and pipelines prior to any hydrostatic pressure testing. Options to clean include compressed air, pressure washing, a combination of the two or any technique that will reduce pollutants from entering the hydrostatic testing water. Wastewaters generated from those cleaning procedures are not authorized to be discharged by this general permit and must be collected for off-site transport and disposal by a licensed waste transporter.

Best management practices such as check dams, or temporary basins must be employed to prevent erosion and any visible discoloration and foaming of the receiving water. An additional requirement included the intake point of the pipe used to draw the test water from the surface water to be located at a depth which minimizes the entrainment of sediments.

9.5.1 Numeric Effluent Limits

Hydrostatic pressure testing wastewater may be discharged to surface water if the discharge complies with the following permit conditions and limits in Tables 4.5.2.1 and 4.5.2.2 below.

Table 4.5.2.1. Instantaneous Maximum Effluent Limit or Range for Petroleum and Natural Gas Hydrostatic Pressure Testing Discharges to Surface Water

Parameter	Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons	5.0	mg/l	WQBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Total Suspended Solids	45	mg/l	TBEL Carried forward from current permit

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.5.2.2—Maximum Limits for Discharges of Petroleum and Natural Gas Hydrostatic Pressure Testing Wastewater to Surface Water by Instream Waste Concentration

Parameter	Instream Waste Concentration (1)							Units	Permit Limit Development
	Reservoir & Lake	0 to 5%	>5% to 20%	>20% to 40%	>40% to 70%	>70% to 100%	Intermittent Discharge		
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	WQBEL calculated using RPA
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	WQBEL calculated using RPA
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	WQBEL calculated using RPA
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	WQBEL calculated using RPA
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	WQBEL calculated using RPA
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	WQBEL calculated using RPA

Footnote:
[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

9.5.2 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.5.2.1 and 4.5.2.2. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.6. Petroleum and Natural Gas Hydrostatic Pressure Testing Discharges to Ground Water

Conditions for the discharge of petroleum and natural gas hydrostatic pressure testing discharges to ground water include common requirements pertaining to aesthetics, toxicity, temperature, and a prohibition against the use of toxic chemicals listed in the Regulations of Connecticut State Agencies.

Unique to the petroleum and natural gas hydrostatic testing category are requirements for a thorough cleaning of the interior of tanks and pipelines prior to any hydrostatic pressure testing. Options to clean include compressed air, pressure washing, a combination of the two or any technique that will reduce

pollutants from entering the hydrostatic testing water. Wastewaters generated from those cleaning procedures are not authorized to be discharged by this general permit and must be collected for off-site transport and disposal by a licensed waste transporter.

Best management practices such as check dams or temporary basins must be employed to prevent erosion and any visible discoloration and foaming of the receiving water. An additional condition requires the intake point of the pipe used to draw the test water from the surface water to be located at a depth which minimizes the entrainment of sediments.

9.6.1 Numeric Effluent Limits

Hydrostatic pressure testing wastewater may be discharged to ground water if the discharge complies with the following permit conditions and limits in Tables 4.6.2.1 below.

Table 4.6.2.1 — Maximum Limits for Petroleum and Natural Gas Hydrostatic Pressure Testing Wastewater Discharges to Ground Water

Parameter	Maximum Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
Temperature	Report	°F	NA
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Aluminum, total	1.5	mg/l	TBEL Carried forward from current permit
Copper, total	Report	mg/l	NA
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Lead, total	Report	mg/l	NA
Manganese, total	3.0	mg/l	TBEL Carried forward from current permit
Zinc, total	Report	mg/l	NA

9.6.2 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.6.2.1. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.7. Fire Suppression System Testing and Hydrant Flushing Discharges to Surface Water

The 2025 general permit defines "Fire suppression system testing" as "wastewater generated by the testing or maintenance of a fire sprinkler or suppression system that meets all effluent limits specified in Section 4.7 or 4.8 of this general permit and does not include foams or other fire-fighting additives.

The 2025 General permit defines ""Hydrant flushing wastewater" as "waters generated from the flushing of hydrants in order to remove accumulated rust and sediment from the pipes and water mains, assess water flow and pressure and to examine conditions of the water distribution system to determine any needed improvements."

The 2018 general permit provided the first permit authorization of these discharges but separated fire suppression system testing wastewater and hydrant flushing wastewater as distinct categories. However, feedback received from the public listening session for the 2025 general permit held August 31, 2023 encouraged the Water Permitting and Enforcement Division of DEEP to consider the possibility of combining these discharges because their requirements were quite similar. The Water Permitting and Enforcement Division evaluated the feedback and believes these discharges can be combined under a single set of requirements and still protect the waters of the state.

Conditions for the discharge of fire suppression system testing and hydrant flushing discharges to surface water include discharge to a surface water only if a discharge to a municipal sanitary sewer, a subsurface disposal system, or land application to the ground surface are not available as options. Other conditions require controls as necessary to remove accumulated solids from the discharge and to prevent erosion.

9.7.1 Numeric Effluent Limits

Fire suppression system testing or hydrant flushing wastewaters may be discharged to surface water if the discharge complies with the following permit conditions and limits in Tables 4.7.2.1 and 4.7.2.2 below.

Table 4.7.2.1 Instantaneous Maximum Limits for Fire Suppression System Testing and Hydrant Flushing Discharges to Surface Water

Parameter	Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
pH	6.0 – 9.0	s.u.	TBEL Carried forward from current permit
Total Petroleum Hydrocarbons	5.0	mg/l	TBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Total Suspended Solids	20	mg/l	TBEL Carried forward from current permit
Total Dissolved Solids	Report	mg/l	NA

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.7.2.2. Instantaneous Maximum Effluent Limits for Fire Suppression System Testing and Hydrant Flushing to Surface Water by Instream Waste Concentration									
Parameter	**Instream Waste Concentration [1]**							**Units**	**Permit Limit Development**
	Reservoir & Lake	**0 to 5%**	**>5% to 20%**	**>20% to 40%**	**>40% to 70%**	**>70% to 100%**	**Intermittent Discharge**		
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	WQBEL calculated using RPA
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	WQBEL calculated using RPA
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	WQBEL calculated using RPA
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	WQBEL calculated using RPA
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	WQBEL calculated using RPA
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	WQBEL calculated using RPA

Footnotes:

[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

9.7.2 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.7.2.1 and 4.7.2.2. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.8. Fire Suppression System Testing and Hydrant Flushing Wastewater Discharges to Ground Water

Conditions

Conditions for the discharge of fire suppression system testing and hydrant flushing discharges to ground water include erosion and sediment controls and structural practices to divert flows away from exposed soils and limit the discharge of pollutants from the site into surface waters. The general permit requires that all steps be taken to avoid land applying to the ground when the ground surface is frozen.

9.8.1 Numeric Effluent Limits
Fire suppression system testing or hydrant flushing wastewaters may be discharged to ground water if the discharge complies with the following permit conditions and limits in Tables 4.8.2.1 below.

Table 4.8.2.1 — Maximum Limits for Fire Suppression System Testing or Hydrant Flushing Wastewater Discharges to Ground Water

Parameter	Maximum Limit	Unit	Permit Limit Development
Flow	500,000	gpd	not applicable
Temperature	Report	°F	not applicable
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Aluminum, total	1.5	mg/l	TBEL Carried forward from current permit
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Manganese, total	3.0	mg/l	TBEL Carried forward from current permit

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

9.8.2 Monitoring
The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.8.2.1. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.9. Boiler Blowdown Discharges to Ground Water

The 2025 general permit defines "boiler blowdown" as "wastewater resulting from periodic or continuous bleed off or draining of bottom, bulk or surface water from a boiler during boiler operation for the purpose of eliminating excess solids from the boiler water, and shall include steam condensate from boiler operations but does not include boil-out or boiler acid cleaning wastewater."

Conditions for the discharge of boiler blowdown discharges to ground water include authorization only for boiler blowdown discharges from boiler water to which chemicals are not added and a requirement that all boiler blowdown discharges be directed to an engineered subsurface disposal system. Discharges of boiler blowdown wastewaters can only be discharged to ground water that has an existing or future Water Quality Classification of GA or GB in the Connecticut Water Quality Standards. Boil-out and boiler acid wastewaters must be permitted separately or collected by a waste transporter holding a valid license issued by the Commissioner for that purpose.

9.9.1 Numeric Effluent Limits
Boiler blowdown wastewaters may be discharged to ground water if the discharge complies with the following permit conditions and limits in Tables 4.9.2.1 below

Table 4.9.2.1. Instantaneous Maximum Limits for Boiler Blowdown Discharges to Ground Water			
Parameter	**Maximum Limit**	**Unit**	**Permit Limit Development**
Flow	500,000	gpd	NA
Temperature	Report	°F	NA
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Aluminum, total	1.5	mg/l	TBEL Carried forward from current permit
Copper, total	Report	mg/l	NA
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Lead, total	Report	mg/l	NA
Zinc, total	Report	mg/l	NA

9.9.2 Monitoring

The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.9.2.1. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.10. Pressure Washing Discharges to Surface Water

Pressure wash wastewater is a new category of discharge in the 2025 general permit. The 2025 general permit defines "pressure washing" as the hydraulic cleaning of structures and other hard surfaces, including but not limited to masonry, metals and concrete, without the use of chemical or biological agents. Most often used in washing dirt, graffiti or oily or atmospheric deposits from the exterior of buildings, cooling towers, bridges, sidewalks or gas station pads, this definition does not include the washing of vehicles (with the exception of boats and construction equipment), trailers or tank interiors or the chemical stripping of paint (with the exception of graffiti removal).

Conditions for the discharge of pressure washing wastewater to surface water contain common requirements pertaining to aesthetics, toxicity, temperature, and a prohibition against the use of toxic chemicals listed in the Regulations of Connecticut State Agencies. Additional conditions prohibit the use of cleaners, detergents, chemical or biological additives to the pressure wash water. A condition also prohibits the discharge of pressure washing wastewater used for the chemical and/or mechanical stripping of paint, other than graffiti removal, including the pressure washing of boat bottom hulls or other surfaces that are painted with an anti-fouling paint.

9.10.1 Numeric Effluent Limits

Pressure washing wastewaters may be discharged to surface water if the discharge complies with the following permit conditions and limits in Tables 4.10.2.1 and 4.10.2.2 below:

Table 4.10.2.1. Instantaneous Maximum Effluent Limit or Range for Discharges of Pressure Washing Wastewater to Surface Water

Parameter	Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
pH	6.0 – 9.0	s.u.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons	5.0	mg/l	TBEL Carried forward from current permit
Total Suspended Solids	20.0	mg/l	TBEL Carried forward from current permit
Total Dissolved Solids	Report	mg/l	NA

Footnotes:
[1] The pH of the discharge shall not be less than 6.0 or more than 9.0 S.U.

Table 4.10.2.2. Instantaneous Maximum Limits for Discharges of Pressure Washing Wastewater to Surface Water by Instream Waste Concentration

Parameter	Instream Waste Concentration (1)								
	Reservoir & Lake	0 to 5%	>5% to 20%	>20% to 40%	>40% to 70%	>70% to 100%	Intermittent Discharge	Units	Permit Limit Development
Aluminum, total	1.5	1.42	0.36	0.18	0.10	0.071	1.5	mg/l	WQBEL calculated using RPA
Manganese, total	1.56	0.64	0.16	0.08	0.046	0.032	3.0	mg/l	WQBEL calculated using RPA
Copper, total	0.105	0.096	0.024	0.012	0.0069	0.0048	0.12	mg/l	WQBEL calculated using RPA
Lead, total	0.046	0.020	0.0049	0.0025	0.0014	0.00098	0.15	mg/l	WQBEL calculated using RPA
Zinc, total	0.292	0.65	0.16	0.081	0.046	0.032	0.32	mg/l	WQBEL calculated using RPA
Total Residual Chlorine	0.085	0.180	0.045	0.023	0.013	0.009	0.05	mg/l	WQBEL calculated using RPA

Footnote:
[1] The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum gallon/hr flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100.

9.10.2 Monitoring
The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Tables 4.10.2.1 and 4.10.2.2. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

9.11. Pressure Washing Wastewater Discharges to Ground Water

Conditions for the discharge of pressure washing wastewater to ground water are similar to those for discharge to surface water. To begin, all discharges of pressure washing wastewater must be land applied to a pervious ground surface without runoff to storm drains or surface water bodies. To achieve this, all storm drains in the vicinity of the pressure washing operation must be obstructed in a manner which ensures that no pressure washing wastewater reaches any storm drain or surface water body. Other conditions contain common requirements pertaining to aesthetics, toxicity, temperature, and a prohibition against the use of toxic chemicals listed in the Regulations of Connecticut State Agencies. Additional conditions prohibit the use of cleaners, detergents, chemical or biological additives to the pressure wash water. A condition also prohibits the discharge of pressure washing wastewater used for the chemical and/or mechanical stripping of paint, other than graffiti removal, including the pressure washing of boat bottom hulls or other surfaces that are painted with an anti-fouling paint. Dischargers must ensure that all discharges do not impact any drinking water wells.

9.11.1 Numeric Effluent Limits
Pressure washing wastewaters may be discharged to ground water if the discharge complies with the following permit conditions and limits in Table 4.11.2.1 below:

Table 4.11.2.1. Instantaneous Maximum Limits for Discharges of Pressure Washing to Ground Water

Parameter	Maximum Limit	Unit	Permit Limit Development
Flow	500,000	gpd	NA
Temperature	Report	°F	NA
pH	6.0 – 9.0	S.U.	WQBEL Carried forward from current permit
Total Petroleum Hydrocarbons (TPH)	5.0	mg/l	TBEL Carried forward from current permit
Aluminum, total	1.5	mg/l	TBEL Carried forward from current permit
Copper, total	Report	mg/l	NA
Iron, total	3.0	mg/l	TBEL Carried forward from current permit
Lead, total	Report	mg/l	NA

Parameter	Maximum Limit	Unit	Permit Limit Development
Manganese, total	3.0	mg/l	TBEL Carried forward from current permit
Zinc, total	Report	mg/l	NA

9.11.2 Monitoring
The general permit requires all discharges be monitored to assure the wastewater treatment system is properly operating and to ensure compliance with effluent limits to protect waters of the state from pollution. Registrants are required to monitor for all parameters in Table 4.11.2.1. Permittees will be required to monitor the first 10% and the last 10% per discharge for flows greater than 500 gpd and retain results onsite.

10.0 Analytical Methods

All sample analysis required under this general permit shall be conducted by a laboratory certified in accordance with the certification requirements specified in section 19-29a of the General Statutes. All samples shall be analyzed using sufficiently sensitive test methods pursuant to 40 CFR 136 unless an alternative method has been approved in writing by the Commissioner pursuant to 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified by the Commissioner.

11.0 Reporting

The results of chemical analyses for registered discharges and any aquatic toxicity test required by this permit will be submitted electronically using NetDMR as prescribed in the general permit.

12.0 Duty to Correct and Report Violations

12.1 Corrective Actions
A Permittee is required upon learning of a violation of any condition of the general permit to immediately take all reasonable actions to determine the cause of the violation, correct the violation, mitigate the impact of the violation, and prevent its recurrence.

12.2 Notification
In accordance with 22a-430-3(j)(11)(D) the permittee shall, within two (2) hours of becoming aware of the circumstances, or at the start of the next business day; but no more than 24 hours from when they become aware of the circumstances outside normal business hours, notify the Commissioner of any actual or anticipated noncompliance with permit terms or conditions if (i) the noncompliance is greater than two times the permitted level except for violations of any limitation for a surface water discharge, in which case all violations shall be reported or (ii) the condition may endanger human health, the environment or the operation of a POTW, including sludge handling and disposal

12.3 Five Day Follow Up Report
The Permittee must submit a report within five (5) days of the noncompliance that contains:
a description of the noncompliance and its cause;

the period of noncompliance, including exact dates and times;
if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

Notification of actual or anticipated noncompliance does not stay any permit term or condition. DEEP has developed an online Noncompliance Reporting web-based platform accessible at:
Noncompliance Notification Form and Noncompliance Follow-Up Report Form

12.4 Additional Notification Requirements
In accordance with 22a-430-3(j)(11)(E), the permittee shall notify the Director within seventy-two hours and in writing within 30 days when they know or have reason to believe that the concentration in the discharge of any listed substance or any toxic substance has exceeded or will exceed the highest of the following levels:

- One hundred micrograms per liter;
- Two hundred micrograms per liter for acrolein and acrylonitrile, five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter for antimony;
- An alternative level specified by the Commissioner, provided such level shall not exceed the level which can be achieved by the permittee's treatment system; and
- A level two times the level specified in the permit application.

13.0 State Regulations of Connecticut State Agencies

The permittee shall comply with sections 22a-430-3 and 22a-430-4 of the Regulations of Connecticut State Agencies which are incorporated into the general permit.

14.0 Federal Standard Conditions

The federal and state standard conditions in 40 CFR 122.41, Conditions applicable to all permits, are incorporated into the genal permit.

15.0 Antidegradation

Activities permitted by this general permit must be consistent with the Antidegradation Standards of section 22a-426 of the RCSA.

16.0 Public Participation

DEEP held one (1) listening session soliciting public feedback during the drafting of the general permit as part of the reissuance process. The meeting was held on June 13, 2023. At this meeting DEEP solicited feedback on the existing permit and suggestions to improve the permitting process.

17.0 Public Notice of Tentative Determination

The following public notice of tentative determination was published on the DEEP website and in newspapers reaching a broad circulation in areas throughout Connecticut when the 2025 draft general permit was publicly noticed at the tentative determination stage:

“The Commissioner shall consider written comments on the general permit from interested persons that are received within 30 days of the public notice of the Commissioner’s tentative determination to issue the general permit. Written comments should be directed to James Creighton, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127, or james.creighton@ct.gov. The Commissioner may hold a public hearing prior to approving or denying an application if, in the Commissioner's discretion, the public interest will be best served thereby, and shall hold a hearing upon receipt of a petition signed by at least twenty-five persons. Notice of any public hearing shall be published at least 30 days prior to the hearing.

Petitions for a hearing should include the application number noted above and identify a contact person to receive notifications. Petitions may also identify a person who is authorized to engage in discussions regarding the application and, if resolution is reached, withdraw the petition. Original signed petitions may be scanned and sent electronically to deep.adjudications@ct.gov or may be mailed or delivered to DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, 06106-5127. All petitions must be received within the comment period noted above.

If submitted electronically, original signed petitions must also be mailed or delivered to the address above within ten days of electronic submittal. If a hearing is held, timely notice of such hearing will be published in a newspaper of general circulation. For additional information go to www.ct.gov/deep/adjudications.“

Connecticut
Department of Energy &
Environmental Protection

Notice of Tentative Determination
Intent to Reissue the Comprehensive General Permit for Discharges to Surface and Ground Water

1.0 Tentative Determination

The Commissioner of the Department of Energy and Environmental Protection ("DEEP") hereby gives notice of a tentative determination to reissue and administer the Comprehensive General Permit for Discharges to Surface and Ground Water ("the General Permit" or "general permit") under the authority of sections 22a-430 and 22a-430b of the Connecticut General Statutes ("CGS").

2.0 Commissioner's Findings

The current General Permit was issued on April 1, 2023, and expires on April 1, 2025. The purpose of the general permit is to protect the waters of the state from discharges of non-contact cooling water, water treatment wastewater, hydrostatic pressure testing of natural gas, petroleum tanks, and pipeline wastewater, fire suppression system testing water, hydrant flushing wastewater, boiler blowdown water, geothermal heat pump water, and pressure washing wastewater to surface water and ground water.

In accordance with applicable federal and state law, the Commissioner has made a tentative determination that discharges authorized under the General Permit will not cause pollution to the waters of the state. The proposed General Permit, if reissued as drafted, contains effluent limits, discharge monitoring requirements, best management practices, and permit conditions established in accordance with Section 22a-430 of the Regulations of Connecticut State Agencies necessary to protect the waters of the state.

3.0 General Permit Regulatory Conditions

The general permit authorizes the discharge of non-contact cooling water, water treatment wastewater, hydrostatic pressure testing of natural gas, petroleum tanks, and pipeline wastewater, fire suppression system testing water, hydrant flushing wastewater, boiler blowdown water, geothermal heat pump water, and pressure washing wastewater to surface waters and ground waters of the state of Connecticut. Any discharge of water, substance, or material into the waters of the state other than the ones specified in the general permit are not authorized by this general permit.

3.1 Registration

Some of the categories of discharges under the authority of this general permit are required to file a complete registration for the Commissioner's written approval prior to initiating the discharge. For existing permittees, interim permit coverage under the general permit will be maintained as long as a completed registration has been submitted within 90 days after the issuance date of the general permit to allow time for existing permittees to submit a complete renewal registration and obtain coverage under the reissued permit.

3.2 Effluent Limitations & Best Management Practices

The general permit establishes numeric and narrative permit limitations and conditions developed to protect water quality standards. Permit conditions and limits are included to ensure the authorized discharges will be protective of the waters of the state.

4.0 Proposed Changes

- The format and layout has been modernized to better facilitate its use by the regulated community.
- The 15% Instream Waste Concentration threshold for eligibility was removed.
- All discharges requiring registration are required to submit electronic Discharge Monitoring Reports through NetDMR.

- The general permit incorporates DEEPs new online noncompliance reporting tools.
- Pressure washing has been added as a new category of discharge.
- Facilities with water treatment discharges to ground water are required to submit and implement a plan for the installation of monitoring wells before the 5-year term of this general permit has expired.

5.0 Commissioner's Authority
The Commissioner is authorized to issue this general permit pursuant to sections 22a-430 and 22a-430b of the CGS and sections 22a-430-3 and 4 of the Regulations of Connecticut State Agencies (RCSA). The Commissioner is authorized to approve or deny any registration under this general permit pursuant to CGS section 22a-430b.

6.0 Public Comment
Interested persons may obtain a copy of this public notice, the draft General Permit and fact sheet on the DEEP website at www.ct.gov/deep/publicnotices. The general permit materials are also available for inspection at the DEEP Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, 79 Elm Street, Hartford, CT from 8:30am – 4:30pm, Monday through Friday. Questions may be directed to James Creighton at james.creighton@ct.gov.

Prior to making a final decision to reissue the proposed general permit, the Commissioner shall consider written comments from interested persons that are received within 30 days of this public notice. Written comments should be directed to: James Creighton, Water Permitting and Enforcement Division, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127 or may be submitted via electronic mail to: james.creighton@ct.gov . Electronic mail is recommended.

6.0 Petitions for Public Hearing
The Commissioner may conduct a public hearing if the Commissioner determines that the public interest will be best served thereby or shall hold a hearing upon receipt of a petition signed by at least twenty-five persons. Petitions should include the name of the general permit noted above and also identify a contact person to receive notifications. Petitions may also identify a person who is authorized to engage in discussions regarding the proposed general permit and, if resolution is reached, withdraw the petition. Original signed petitions may be scanned and sent electronically to deep.adjudications@ct.gov or may be mailed or delivered to: DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, CT 06106- 5127. All petitions must be received within the comment period noted above. If submitted electronically, original signed petitions must also be mailed or delivered to the address above within ten days of electronic submittal. If a hearing is held, timely notice of such hearing will be published in a newspaper of general circulation.

Emma Cimino

Emma Cimino
Deputy Commissioner

Date: September 12, 2024

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action and Equal Opportunity Employer that is committed to complying with the Americans with Disabilities Act. To request an accommodation contact us at 860-418-5910 or deep.accommodations@ct.gov.

Draft Permit and Fact Sheet: www.ct.gov/deep