



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

General Permit for the Discharge of Minor Non-contact Cooling and Heat Pump Water

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General Permit for the Discharge of Minor Non-Contact Cooling and Heat Pump Water

Table of Contents

Section 1.	Authority	1
Section 2.	Definitions.....	1
Section 3.	Authorization Under This General Permit	2
	(a) Eligible Activities.....	2
	(b) Requirements for Authorization.....	2
	(c) Geographic Area.....	5
	(d) Effective Date and Expiration Date of this General Permit	5
	(e) Effective Date of Authorization	5
	(f) Revocation of an Individual Permit.....	5
	(g) Issuance of an Individual Permit.....	5
Section 4.	Registration Requirements	5
	(a) Who Must File a Registration	5
	(b) Scope of Registration	7
	(c) Contents of Registration.....	7
	(d) Where to File a Registration.....	10
	(e) Additional Information.....	10
	(f) Action by Commissioner.....	10
Section 5.	Operating Conditions of This General Permit.....	11
	(a) Treatment and Control Requirements	11
	(b) Effluent Limitations for Discharges to a Surface Water	11
	(c) Effluent Limitations for Discharges to a POTW (Sanitary Sewer).....	12
	(d) Effluent Limitations for Discharges to Groundwater.....	13
	(e) Monitoring and Reporting Requirements for Discharges to a Surface Water	13
	(f) Monitoring and Reporting Requirements for Discharges to a POTW (Sanitary Sewer).....	16
	(g) Monitoring and Reporting Requirements for Discharges to Groundwater	17
	(h) Sample Type.....	18
	(i) Record Retention.....	18
	(j) Recording and Reporting Violations.....	18
	(k) Regulations of Connecticut State Agencies Incorporated into this General Permit...20	20
	(l) Reliance on Registration	20
	(m) Duty to Correct and Report Violations.....	21
	(n) Duty to Provide Information	21
	(o) Certification of Documents	21
	(p) Date of Filing.....	21
	(q) False Statements	21

Section 5.	Operating Conditions of This General Permit (continued)	
	(r) Correction of Inaccuracies.....	21
	(s) Transfer of Authorization	21
	(t) Other Applicable Law	22
	(u) Other Rights	22
Section 6.	Commissioner’s Powers.....	22
	(a) Abatement of Violations	22
	(b) General Permit Revocation, Suspension, or Modification	22
	(c) Filing of an Individual Application	22

General Permit for the Discharge of Minor Non-Contact Cooling and Heat Pump Water

Section 1. Authority

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

Section 2. Definitions

Terms used in this general permit shall be defined as in Section 22a-423 of the General Statutes and Section 22a-430-3(a) of the Regulations of Connecticut State Agencies, except as defined below. As used in this general permit:

“*Approval of Registration*” means an approval of registration issued under Section 3 of this general permit.

“*Authorized activity*” means any activity authorized by an approval of registration under this general permit.

“*Commissioner*” means the commissioner of energy and environmental protection or his agent.

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

“*Department*” means the Department of Energy and Environmental Protection.

“*Individual permit*” means a permit issued to a named permittee under Section 22a-430 of the General Statutes.

“*Minor non-contact cooling and heat pump water*” means wastewater which has been used for cooling purposes, or generated from cooling processes, including but not limited to condensate from cooling systems, or for heating purposes and which does not come into direct contact with a product or process, except for water treatment chemicals in recirculation systems, and has a maximum daily flow of not more than 500,000 gallons per day. This definition does not include air compressor condensate or blowdown from boiler equipment.

“*Municipality*” means a city, town or borough of the state.

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

“*Permittee*” means any person who or municipality which initiates, creates, originates or maintains a discharge to the waters of the state under the authority of this general permit.

“*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.

“*POTW Authority*” means the chairperson or responsible official of the Water Pollution Control Authority which owns or operates a Publicly Owned Treatment Works.

“*Registrant*” means a person or municipality which files a registration.

“*Registration*” means a registration form filed with the commissioner pursuant to Section 4 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.

“*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.

Section 3. Authorization Under this General Permit

(a) *Eligible Activities*

The following activity is authorized by this general permit, provided the requirements of subsection (b) of this section are satisfied and the authorized activity is conducted in accordance with the conditions listed in Section 5.

Discharge of minor non-contact cooling and heat pump water to a surface water, groundwater or a Publicly Owned Treatment Works (POTW) (sanitary sewer).

Any discharge of water, substance or material into the waters of the state other than the one specified in this section is not authorized by this general permit, and any person or municipality who initiates, creates, originates or maintains such a discharge must first apply for and obtain authorization under Section 22a-430 of the General Statutes.

(b) *Requirements for Authorization*

This general permit authorizes the activity listed in subsection (a) of this section provided:

(1) Registration

- (A) For any discharge to a surface water, except for discharges from residential building heat pump systems of less than 50,000 gallons per day and minor non-contact cooling and heat pump water *condensate*, a completed registration has been filed with the commissioner. Additional exemptions to this registration requirement are listed in Tables 1 and 2 of this general permit.

(B) For any discharge to a POTW or to groundwater, except for discharges from minor non-contact cooling and heat pump water *condensate*, which exceeds 5,000 gallons per day, a completed registration has been filed with the commissioner. Additional exemptions to this registration requirement are listed in Tables 1 and 2 of this general permit.

(2) Coastal Area Management

Such discharge is consistent with all applicable goals and policies in Section 22a-92 of the General Statutes, and will not cause adverse impacts to coastal resources as defined in Section 22a-93 of the General Statutes.

(3) Endangered and Threatened Species

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

(4) A discharge of minor non-contact cooling and heat pump water from vapor degreasers, dry cleaning machines, or other equipment used to cool chlorinated solvent vapors, and a discharge of minor non-contact cooling and heat pump water which contains chemicals added to the source water after it enters the site, e.g., cooling tower blowdown, shall be discharged only to a POTW or to a surface water which does not have an existing or future classification of A, AA, or SA in the Connecticut Water Quality Standards at the time the registration is submitted.

(5) A discharge of minor non-contact cooling water to groundwater 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 groundwater, public water supply or surface water as source water.

(6) A discharge of minor heat pump water shall be derived solely from a once-through heat exchange system which does not receive chemical additions of any kind and which uses on-site groundwater, public water supply or surface water as source water.

(7) For any discharge to a POTW, the maximum daily flow of minor non-contact cooling and heat pump water generated by a registrant at one site shall not exceed 50,000 gallons per day, or one percent of the design capacity of the POTW which receives the discharge, whichever is less.

(8) For any discharge to a surface water, the maximum daily flow of minor non-contact cooling and heat pump water generated by a registrant at one site shall not exceed 500,000 gallons per day and shall have a minimum dilution available in the receiving stream at seven day, ten year low flow of at least ten to one.

(9) For any discharge to a surface water, chemical additives used on site in minor non-contact cooling and heat pump water shall not contain any of the 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.

- (10) For any discharge to groundwater, the maximum daily flow of all discharges of minor non-contact cooling and heat pump water generated by a registrant at one site shall not exceed 50,000 gallons per day.
- (11) For any discharge of minor non-contact cooling and heat pump water, groundwater or surface water contaminated with any of the 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, in writing, an approval from the commissioner.
- (12) For any discharge of minor non-contact cooling and heat pump water, no on-site water treatment chemicals or additives containing chromium, copper, lead, zinc, or tributyl tin shall be added to any discharge nor shall sacrificial metals be used within the cooling water or heat pump system on-site.
- (13) Permit *renewal* requirements for authorization are specified below:

Discharge Location	Flow Rate (gallons per day)	Effluent Analysis for Permit Renewal	Professional Engineer Certification Requirement
POTW or Groundwater	5,000-50,000 gpd	Not required, unless violations trigger reporting requirement under section 5(j)(2) of this general permit. If so, three new separate analyses would be required.	No, provided no changes are made to the discharge in accordance with section 22a-430-3(i) of the RCSA.
Surface Water	All Flow	Not required, as long as the permittee has been in compliance with the effluent limits and annual reporting requirements for the previous two years. If violations occurred, or data has not been reported, three new separate tests would be required.	Yes

- (14) For any increase in flow for a discharge to a POTW (sanitary sewer) or to groundwater, no permit modification is required.
- (15) For any increase of the permitted maximum daily flow to a surface water, a permit modification is required. The permittee shall request in writing a permit modification from the Commissioner prior to the increase.
- (16) No effluent limitation standard or guideline adopted by the U.S. Environmental Protection Agency under the federal Clean Water Act is applicable to the discharge.

(17) If any water is withdrawn from groundwater or a surface water source in an amount which exceeds 50,000 gallons in any twenty-four hour period, a permit for such withdrawal under Section 22a-368 or 22a-378a of the General Statutes is required unless such withdrawal has been properly permitted or registered with the commissioner under said Section 22a-368.

(c) ***Geographic Area***

This general permit applies throughout the State of Connecticut.

(d) ***Effective Date and Expiration Date of this General Permit***

This general permit is effective March 30, 2016 and expires on March 29, 2017.

(e) ***Effective Date of Authorization***

For a person or municipality not required to register under Section 4, an activity is authorized by this general permit on the date the general permit becomes effective or on the date the activity is initiated, whichever is later.

For a person or municipality required to register, an activity is authorized by this general permit on the date the commissioner receives a completed registration with respect to such activity.

(f) ***Revocation of an Individual Permit***

If an activity which is eligible for authorization under this general permit is presently authorized by an individual permit, the existing individual permit may be revoked by the commissioner upon a written request by the permittee. If the commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity under this general permit.

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

If the commissioner issues an individual permit authorizing an activity authorized by this general permit, this general permit shall cease to authorize that activity beginning on the date such individual permit is issued.

Section 4. Registration Requirements

(a) ***Who Must File a Registration***

Any person who or municipality which wishes to initiate, create, originate or maintain a discharge under the authority of this general permit and who meets the requirements as indicated in Table 1 and 2 shall file with the commissioner (1) a registration form which meets the requirements of Section 4 of this general permit and (2) the applicable fee. A summary of requirements is listed in Tables 1 and 2. See specific exemptions following Table 1.

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

For any person or municipality not required to file a registration under this section, such permittee must comply with all other applicable conditions of this general permit.

Table 1

Discharge Locations	Flow Rate (gallons per day)	Registration Type Required	Fee Required for Any person	Fee Required for Municipality
Surface Water	All Flow	Registration Only No Approval of Registration Required (Notice of Coverage)	\$625.00	\$312.50
POTW (Sanitary Sewer)	Less than 5,000	None	None	None
POTW (Sanitary Sewer)	Equal to or more than 5,000	Registration Only No Approval of Registration Required (Notice of Coverage)	\$625.00	\$312.50
Groundwater	Less than 5,000	None	None	None
Groundwater	Equal to or more than 5,000	Registration Only No Approval of Registration Required (Notice of Coverage)	\$625.00	\$312.50

Note: For any discharge of minor non-contact cooling and heat pump water, groundwater contaminated with any of the 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 requested, in writing, approval from the commissioner.

The following discharges are exempt from certain requirements of this general permit as listed below:

- (1) A minor non-contact cooling water condensate and heat pump water condensate discharge, excluding air compressor condensate, is exempt from registration, monitoring, and fee requirements provided such discharge meets the requirements of Section 3 and conditions of subsection 5(a) of this general permit.
- (2) A minor non-contact cooling and heat pump water discharge of less than 5,000 gallons per day to the groundwater is exempt from registration and fee requirements provided such discharge meets the requirements of Section 3 and Section 5 of this general permit.
- (3) A minor non-contact cooling and heat pump water discharge of less than 5,000 gallons per day to the POTW (sanitary sewer) is exempt from registration, monitoring, and fee requirements provided such discharge meets the requirements of Section 3 and subsection 5(a) of this general permit.
- (4) A minor heat pump water discharge, as described in Table 2, derived solely from a once-through heat exchange system which does not receive chemical additions of any kind and which uses on-site groundwater or a surface water as source water is exempt from certain requirements, listed in Table 2, provided the requirements of Section 3 and conditions of Section 5 of this general permit are met.

Table 2

Minor Heat Pump Water Generator	Discharge Locations	Flow Rate (gallons per day)	Registration Requirement	Fee Required	Monitoring Required
Residential Building	Surface Water or POTW (Sanitary Sewer) or Groundwater	less than 50,000	No	No	No
Residential Institution	POTW (Sanitary Sewer)	less than 50,000	No	No	No
Residential Institution	Surface Water or Groundwater	0 - 500,000	Yes	Yes	Yes
Nonresidential Building	POTW (Sanitary Sewer)	less than 50,000	No	No	No
Nonresidential Building	Surface Water or Groundwater	0 - 500,000	Yes	Yes	Yes

(b) Scope of Registration

A registrant shall register on one registration form every activity at a single site for which activity the registrant seeks authorization under this general permit. Activities at more than a single site may not be registered on one registration form.

(c) Contents of Registration

(1) Fees

- (A) For a discharge to a surface water, POTW (sanitary sewer) or to groundwater which requires a Registration (Notice of Coverage), the registrant shall submit with a registration form a fee of \$625.00 if a person and \$312.50 if a municipality pursuant to Section 22a-430-6 of the Regulations of Connecticut State Agencies.

Unless specifically exempted in Section 4(a) of this general permit, a registration shall not be deemed complete and no activity shall be authorized by this general permit, unless the registration fee has been paid in full.

- (B) The registration fee shall be paid by check or money order payable to the **Department of Energy and Environmental Protection.**
- (C) The registration fee is nonrefundable.

(2) Registration Form

A registration shall be filed on forms prescribed and provided by the commissioner and shall include the following:

- (A) Legal name, address, and telephone number of the person who initiates, creates, originates or maintains the discharge and of the person that owns the activity or source generating the discharge. If any such person(s) is a corporation or a limited partnership transacting business in Connecticut, include the exact name as registered with the Connecticut Secretary of the State.
- (B) Legal name, address, and telephone number of the owner of the property on which the subject activity is proposed to take place.
- (C) Legal name, address and telephone number of the registrant representative, if any. ~~REGISTRATION~~
- (D) Legal name, address and telephone number of any consultant(s) or engineer(s) retained by the registrant to prepare the registration or to design or construct the subject activity.
- (E) Location address of the site of the discharge(s).
- (F) A detailed description of the discharge(s), including but not limited to, the maximum daily flow of minor non-contact cooling and heat pump water, in gallons per day, to be discharged at the site.
- (G) A detailed description of the activity generating any withdrawal and discharge at the site.
- (H) For a discharge to a surface water or to groundwater, an 8 ½" by 11" copy of the relevant portion or a full-sized original of a United States Geological Survey quadrangle map, with a scale of 1:24,000, showing the exact location of the discharge, specifying the longitude and latitude of the discharge to within the closest 15 seconds, and including the quadrangle name of the USGS map.
- (I) For a discharge to a surface water, the calculations and the method of calculating the seven day ten year low flow of the receiving water, including but not limited to, identification of the sources(s) of all information used in such calculation.
- (J) The analytical data used by the registrant and the professional engineer to certify the registration.
- (K) For any discharge to a surface water that does not have a flow meter capable of measuring and recording total daily flow, a professional engineer licensed to practice in Connecticut shall certify in writing as follows:

“I certify that the methods used to calculate flows are based on generally acceptable engineering practices in my professional judgement. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

(L) The signature of a professional engineer licensed to practice in Connecticut who shall certify in writing as follows:

- (i) For any discharge which has **not** been initiated, created, originated or maintained as of the date the registration is submitted:

“I certify that in my professional judgment proper operation and maintenance of any systems installed to treat the discharge(s) which are the subject of this registration will ensure that all effluent limitations and other conditions in the General Permit for the Discharge of Minor Non-contact Cooling and Heat Pump Water are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on a site inspection by me or someone under my direct supervision, after installation of process equipment generating the discharge and/or a treatment system to be utilized to meet the general permit requirements, and on my review of information, such as reports, studies and design documents describing (1) the proposed activities and (2) any treatment system for the wastewaters to be discharged. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

- (ii) For any discharge that has been initiated, created, originated or maintained as of the date the registration is submitted:

“I certify that in my professional judgment the discharge(s) which are the subject of this registration comply with all conditions of the General Permit for the Discharge of Minor Non-contact Cooling and Heat Pump Water, including but not limited to all effluent limitations in Section 5 of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will ensure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limitations and conditions of such general permit without treatment. This certification is based in part on a site inspection by me or someone under my direct supervision, and my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136. Such samples were representative of the discharge during standard operating conditions, were taken in the previous 12 months, at least one week apart, and were of the type(s) specified in Section 5 of the general permit for minor non-contact cooling and heat pump water discharges. Such samples were analyzed for all parameters specified in Section 5 of such general permit. In the case of discharges of minor non-contact cooling and heat pump water less than 5,000 gallons per day, this certification may be based on review of analyses from one effluent sample collected, preserved, handled and analyzed as specified in the previous sentence. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

- (iii) For any *renewal* of authorization under this general permit for discharges to a POTW (sanitary sewer) or to groundwater, a professional engineer certification is not required provided no changes are made to the discharge in accordance with Section 22a-430-3(i) of the Regulations of Connecticut State Agencies.

- (M) The signature of the registrant and of the individual or individuals responsible for actually preparing the registration, each of whom shall certify in writing as follows:

“I certify that I have read the General Permit for Minor Non-Contact Cooling and Heat Pump Water; that the discharge which is the subject of this registration is eligible for authorization under such permit; that if such discharge commenced prior to the issuance of such permit, all applicable requirements of such permit are being met; and that a functioning and effective system is in place to assure that all such requirements are met so long as the discharge which is the subject of this registration continues.

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 also certify that this general permit registration is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute.”

(d) *Where to File a Registration*

- (1) A registration shall be filed with the commissioner at the following address:

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

- (2) For any discharge to a POTW, a copy of the registration shall also be sent to the POTW which receives or will receive the discharge.

(e) *Additional Information*

The commissioner may require a registrant 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. Such information shall be certified as prescribed in subsection 5(o) of this general permit.

(f) *Action by Commissioner*

- (1) The commissioner may reject without prejudice a registration if she determines that it does not satisfy the requirements of subsection 4(c) of this general permit or more than thirty days have elapsed since the commissioner requested that the registrant submit additional information or the required fee and the registrant has not submitted such information or fee. A registration refiled after such a rejection shall be accompanied by the fee specified in subdivision (1) of subsection 4(c) of this general permit.

- (2) The commissioner may disapprove a registration if she finds that the subject activity is inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.
- (3) Disapproval of a registration under this subsection shall constitute notice to the registrant that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit.
- (4) The commissioner may approve a registration with reasonable conditions. If the commissioner approves a registration with conditions, the permittee shall be bound by such conditions as if they were a part of this general permit.
- (5) Rejection or disapproval or approval of a registration shall be in writing.

Section 5. Operating Conditions of this General Permit

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, the permittee shall assure that authorized activities are conducted in accordance with the following conditions:

(a) *Treatment and Control Requirements*

The permittee shall comply with the following requirements:

- (1) The discharge shall not enter any open floor trench or drainage system which could also receive interior floor drainage, chemical spillage or other wastewater not part of the cooling water system, unless such floor trench or discharge system is authorized separately under a permit issued pursuant to Section 22a-430 or Section 22a-430b of the Connecticut General Statutes. All non-contact cooling water shall be totally enclosed within piping during its use.
- (2) Water treatment chemicals or additives containing chromium, copper, lead, zinc, or tributyl tin shall not be added to the discharge nor shall sacrificial metals be used within the cooling water or heat pump system.

(b) *Effluent Limitations for Discharges to a Surface Water*

For discharges to a surface water, the permittee shall comply with the following requirements:

(1) Chemical Parameters

(A) Temperature

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

(B) Salinity

Discharges of minor non-contact cooling and heat pump water shall not lower the salinity of the receiving water by more than five percent.

(C) pH

The pH of the discharge shall not be less than 6.0 nor greater than 9.0 standard units at any time, unless the discharge is into the same water body from which the water is drawn, and the pH of the source water as naturally occurs is less than 6.0 or greater than 9.0 standard units, in which case the pH of the discharge shall be no more than 0.5 standard units greater or less than the source water.

(D) Appearance

The discharges shall not contain or cause in the receiving stream, a visible oil sheen, or floating solids, or cause visible discoloration, or foaming in the receiving water body.

(E) Copper, Lead, Chlorine, Zinc

No effluent limitation.

(2) Aquatic Toxicity

The discharges to a surface water shall not be acutely toxic and shall exhibit an NOAEL as determined pursuant to the monitoring protocols specified in Section 5(e) of this permit greater than or equal to 100% at all times.

(c) *Effluent Limitations for Discharges to a POTW (Sanitary Sewer)*

For a discharge to a sanitary sewer, the permittee shall comply with the following requirements:

(1) Chemical Parameters

(A) Temperature

The temperature of the discharge shall not exceed 150^o F at the first manhole after leaving the site and shall not cause the temperature of the influent at the headworks of the sewage treatment plant to exceed 104^o F.

(B) pH

The pH of the discharge shall not be less than 5.5 nor greater than 10.0 standard units at any time.

(C) Appearance

The discharge shall not contain a visible oil sheen, or cause visible discoloration, or foaming, in the receiving sewage treatment plant's final effluent.

(2) Aquatic Toxicity

No effluent limitation.

(d) *Effluent Limitations for Discharges to Groundwater*

For a discharge to groundwater, the permittee shall comply with the following requirements:

(1) Chemical Parameters

(A) Temperature

No temperature limitation.

(B) pH

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

(C) Appearance

The discharge shall not contain a visible oil sheen.

(D) Copper, Lead, Oil & Grease, Zinc

No effluent limitation.

(2) Aquatic Toxicity

No effluent limitation.

(e) *Monitoring and Reporting Requirements for Discharges to a Surface Water*

For a discharge to surface water, the permittee shall comply with the following requirements:

Note: Minor non-contact cooling water condensate and heat pump water *condensate* discharge, excluding air compressor condensate, is exempt from monitoring requirements provided such discharge meets the requirements of Section 3 and the conditions of subsection 5(a) of this general permit.

(1) Chemical Parameters

Chemical analyses shall be performed on the sample collected for toxicity testing for the parameters specified in Table 3 using the methods specified in 40 CFR 136 which are capable of achieving the limits of detection also specified in Table 3.

Table 3 - For Discharges to Surface Water

Pollutant Parameters	Required Limit of Detection
Copper, Total Recoverable	0.005 mg/l
Lead, Total Recoverable	0.005 mg/l
pH	+/- 0.10 Standard Unit
Total Residual Chlorine	0.050 mg/l
Temperature	°F
Zinc, Total Recoverable	0.020 mg/l
Salinity	parts per thousand (ppt)
Appearance	---
Hardness	---

(2) Aquatic Toxicity

Samples collected for determination of aquatic toxicity shall be tested using the NOAEL protocol specified in Section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies.

The following additional specifications apply:

- (A) Toxicity tests shall be initiated within 24 hours of sample collection.
- (B) For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24 hours old) *Daphnia pulex* 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* as test organisms.
- (C) Toxicity tests shall be 48 hours in duration.
- (D) All samples collected for determination of aquatic toxicity shall be analyzed for chemical parameters listed in Table 3 above.
- (E) If any toxicity test indicates that either of the conditions listed below has occurred, a second sample of the discharge shall be collected and tested as described above within 60 days of the previous test.
 - (i) The survival of the test organisms was less than ninety (90) percent in the *average* of the test chambers containing undiluted effluent (permit limit exceeded).
 - (ii) The survival of test organisms was less than ninety (90) percent *in each replicate* control test chamber or test conditions were not achieved as specified in Section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies, such as maintenance of appropriate environmental controls (invalid test).

(3) Flow Monitoring

For a discharge of 5,000 gallons per day or greater to a surface water body, the permittee shall use the method certified by a professional engineer to measure and record total daily flow during all periods of discharge. For a discharge to a surface water of less than 5,000 gallons per day, the permittee may use other 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. Total Daily Flow shall be monitored in accordance with Table 4.

(4) Monitoring Location

All wastewater samples shall be composed solely of minor non-contact cooling and heat pump water, prior to combination with wastewaters of any other type. All samples taken shall be representative of the discharge during standard operating conditions.

(5) Monitoring Frequency

Monitoring for a discharge to a surface water shall be performed according to the following schedule:

Table 4

Permitted Maximum Daily Flow (gallons per day)	Total Daily Flow Monitoring Frequency	¹Aquatic Toxicity Monitoring Frequency	²Chemical Parameters Monitoring Frequency
5,000 or less	Monthly	Annually (July)	Annually
5,000 - 500,000	Monthly	Semi-Annually (January & July)	Semi-Annually

Footnotes to Table 4

1. The sample analyzed for aquatic toxicity determination shall also be used to satisfy effluent monitoring requirements for the chemical parameters.
2. If there is no discharge in the specified sampling month, the permittee shall report "NO FLOW" on the monitoring report for that month and then sample on the next month that discharge occurs.

(6) Annual Reporting

For a discharge to a surface water, the permittee shall submit annually, during the month of September of each year, the results of all toxicity tests and chemical analyses performed on the discharge as required by Table 4 in this general permit during the prior twelve months on a form provided by the commissioner. Each annual submission shall include the results of chemical analyses for the parameters listed in Table 3, the results of toxicity tests, and information necessary to verify the validity of aquatic toxicity test procedures, including but not limited to records of organisms mortality and environmental conditions noted during the tests.

(f) Monitoring and Reporting Requirements for Discharges to a POTW (Sanitary Sewer)

For a discharge to a sanitary sewer, the permittee shall comply with the following requirements:

Note: A minor non-contact cooling and heat pump water discharge of less than 5,000 gallons per day to the POTW and *condensate* discharge, excluding air compressor condensate, is exempt from monitoring requirements provided such discharge meets the requirements of Section 3 and the conditions of subsection 5(a) of this general permit.

(1) Chemical Parameters

Analysis for pH and temperature (°F) shall be performed using the methods specified in 40 CFR 136.

(2) Aquatic Toxicity

No Monitoring

(3) Flow Monitoring

For a discharge to a sanitary sewer 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. Total Daily Flow shall be monitored in accordance with Table 5.

(4) Monitoring Location

All wastewater samples shall be composed solely of minor non-contact cooling and heat pump water, prior to combination with wastewaters of any other type. All samples taken shall be representative of the discharge during standard operating conditions.

(5) Monitoring Frequency

Monitoring of a discharge to a sanitary sewer shall be performed according to the following schedule:

Table 5

Maximum Daily Flow (gallons per day)	Total Daily Flow Monitoring Frequency	Aquatic Toxicity Monitoring Frequency	¹Chemical Parameters Monitoring Frequency
Less than 5,000	None	None	None
5,000 - 50,000	Monthly	None	Annually (July)

Footnote to Table 5

¹ If there is no discharge in the specified sampling month, the permittee shall record "NO FLOW" on the monitoring report for that month and then sample on the next month that discharge occurs.

(6) Reporting

None, except as required under subsection 5(i) and 5(j).

(g) Monitoring and Reporting Requirements for Discharges to Groundwater

For a discharge to groundwater, the permittee shall comply with the following conditions:

Note: A minor non-contact cooling and heat pump water *condensate* discharge, excluding air compressor condensate, is exempt from monitoring requirements provided such discharge meets the requirements of Section 3 and the conditions of subsection 5(a) of this general permit.

(1) Chemical Parameters

Chemical analyses shall be performed using the methods specified in 40 CFR 136 for the parameters specified in Table 6 below.

Table 6

Monitoring Parameters for Discharges to Groundwater
Copper, Total Recoverable
Lead, Total Recoverable
Oil and Grease, Total
pH
Zinc, Total Recoverable
Appearance

(2) Aquatic Toxicity

No Monitoring

(3) Flow Monitoring

For a discharge to groundwater 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. Total Daily Flow shall be monitored in accordance with Table 7.

(4) Monitoring Location

All wastewater samples shall be composed solely of minor non-contact cooling and heat pump water, prior to combination with wastewaters of any other type. All samples taken shall be representative of the discharge during standard operating conditions.

(5) Monitoring Frequency

Monitoring for the parameters listed on Table 6 shall be performed according to the following schedule:

Table 7

Maximum Daily Flow (gallons per day)	Total Daily Flow Monitoring Frequency	Aquatic Toxicity Monitoring Frequency	¹Chemical Parameters (See Table 6) Monitoring Frequency
Less than 5,000	Monthly	None	Annually (July)
5,000 - 50,000	Monthly	None	Semi-Annual (January and July)

Footnote to Table 7

¹ If there is no discharge in the specified sampling month, the permittee shall record "NO FLOW" on the monitoring report for that month and then sample on the next month that discharge occurs.

(6) Reporting

None, except as required under subsection 5(i) and 5(j).

(h) Sample Type

Samples collected for purposes of monitoring aquatic toxicity and chemical parameters shall be grab samples. Where minor non-contact cooling and heat pump water is generated at different locations at a site, one composite sample consisting of grab samples from each location combined proportional to the maximum daily flow may be used as the sample type provided that all of the discharges are directed to the sanitary sewer, groundwater or same surface water body. Otherwise, individual grab samples must be collected from each location and analyzed separately. A composite sample is not authorized for total residual chlorine and total oil & grease analyses.

(i) Record Retention

Except for a discharge to a surface water and as provided below, or as otherwise requested by the commissioner, all analytical results required under this general permit shall not be submitted to the commissioner but shall be retained at the facility for a period of 5 years as required by Section 22a-430-3(j)(9)(B) of the Regulations of Connecticut State Agencies, and shall be made available to the commissioner immediately upon request.

(j) Recording and Reporting Violations

- (1) If the permittee becomes aware of any violation of an effluent limitation or of another condition of this general permit, such violation shall be recorded within twenty-four hours in a log which contains the following information:
 - (A) the condition(s) or effluent limitation(s) violated;
 - (B) the analytical results and information demonstrating such violation(s);
 - (C) the cause of the violation(s), if known;
 - (D) period of noncompliance including exact dates and times;

- (E) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;
 - (F) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, including analytical data used to verify that the general permit effluent limitations and all conditions are again being met, and the dates such steps are executed; and
 - (G) the name and title of the person recording the information and the date and time of such recording.
- (2) The permittee shall comply with subdivision (2)(A), (2)(B) and (3) if either of the violations indicated below occur:

Table 8

Types of Violations
Three simultaneous or consecutive violations of this general permit (e.g., three effluent limitation violations involving the same or different effluent limitations, or one effluent limitation violation, one flow violation, and one recording violation), or
Four violations of this general permit in any consecutive twelve month period, or
The exceedence of any aquatic toxicity limit or pH by more than one standard unit.

- (A) Within 20 days after any occurrence listed in Table 8, the permittee shall submit a report to the following address:

COMPLIANCE UNIT
 PERMITTING AND ENFORCEMENT DIVISION
 BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
 DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

This report shall be prepared by a professional engineer licensed to practice in Connecticut. Such report shall contain the information required to be recorded under subdivision (1) of this section for each violation.

- (B) Within sixty days after the deadline for submitting the report specified in subdivision (j)(2)(A) of this section, the permittee shall submit to the same address listed above the following certification signed by a professional engineer licensed to practice in Connecticut:

“I certify that in my professional judgment all discharge(s) which are maintained at the facility referenced herein, and which are covered under the General Permit for Minor Non-contact Cooling and Heat Pump Water, comply with all conditions of said permit, including but not limited to all effluent limitations in Section 5 of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will ensure that all effluent limitations and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent

limitations and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136, which samples were taken after all effluent limitations and all conditions in the general permit are again being met, at least one week apart, and were of the type(s) specified in Section 5 of said general permit, and were analyzed for the parameters specified in Section 5 of said general permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

- (3) A copy of any report required to be submitted under this section shall also be sent to the POTW which receives the discharges within 15 days.

(k) *Regulations of Connecticut State Agencies Incorporated into this General Permit*

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

- (1) Section 22a-430-3:

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

Subsection (c) Inspection and Entry.

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

Subsection (e) Duty to Comply

Subsection (f) Proper Operation and Maintenance

Subsection (g) Sludge Disposal

Subsection (h) Duty to Mitigate

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

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

(1), (6), (7) (8), (9) and (11) (except subparagraphs (9) (A)(2), and (9) (C))

Subsection (k) Bypass

Subsection (m) Effluent Limitation Violations

Subsection (n) Enforcement

Subsection (o) Resource conservation

Subsection (p) Spill prevention and control

Subsection (q) Instrumentation, Alarms, Flow Recorders

Subsection (r) Equalization

- (2) Section 22a-430-4

Subsection (t) - Prohibitions

Subsection (p) - Revocation, Denial, Modification Appendices

(l) *Reliance on Registration*

In evaluating the permittee's registration, the commissioner has relied on information provided by the permittee. If such information proves to be false or incomplete, the permittee's authorization may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

(m) *Duty to Correct and Report Violations*

Upon learning of a violation of a condition of this general permit, a permittee shall immediately take all reasonable action to determine the cause of such violation, correct and mitigate the results of such violation, prevent further such violation, and comply with subsection 5(j) of this general permit.

(n) *Duty to Provide Information*

If the commissioner requests any information pertinent to the authorized activity or to compliance with this general permit or with the permittee's authorization under this general permit, the permittee shall provide such information within thirty (30) days of such request. Such information shall be certified as prescribed in subsection 5(o) of this general permit.

(o) *Certification of Documents*

Any document, including but not limited to any notice, information or report, which is submitted to the commissioner under this general permit shall be signed by the permittee, or a duly authorized representative of the permittee, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

(p) *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. The word "day" as used in this general permit 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.

(q) *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, under Section 53a-157b of the General Statutes.

(r) *Correction of Inaccuracies*

Within fifteen days after the date a registrant or permittee becomes aware of a change in any information in his or her registration or in any material provided in support thereof, or becomes aware that any such information is or was inaccurate or misleading or that any relevant information has been omitted, such registrant or permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified as prescribed in subsection 5(o) of this general permit.

(s) *Transfer of Authorization*

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

(t) ***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.

(u) ***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.

Section 6. Commissioner's Powers

(a) ***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.

(b) ***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 to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) ***Filing of an Individual Application***

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit if he wishes to continue lawfully conducting the authorized activity, the permittee may continue conducting such activity only if he files an application for an individual permit within thirty (30) 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.

Issued Date: March 15, 2016

Michael Sullivan /s/

Michael Sullivan
Deputy Commissioner

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