

**Rhode Island Pollutant Discharge Elimination System
General Permit for Non-Contact Cooling Water Discharges**



Effective Date: March 1, 2019

Expiration Date: February 29, 2024

**Rhode Island Department of Environmental Management
Office of Water Resources
RIPDES Program**

**RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT FOR NON-CONTACT COOLING WATER DISCHARGES**

I. GENERAL COVERAGE UNDER THIS PERMIT

- A. Permit Coverage. This permit may cover all areas of the State of Rhode Island.
- B. Wastewater Type
- (1) Eligibility. Except for non-contact cooling water discharges identified under Part I.B.(3)., this permit covers the discharge of non-contact cooling water. Non-contact cooling water is defined as water that is used to reduce temperature and which does not come into direct contact with any raw materials or intermediate, final, or waste product (other than heat).
 - (2) Allowable discharges. Other discharges not comprised of non-contact cooling water are allowed under this permit but are limited to the following: steam condensate that does not contain any treatment chemicals; air conditioner condensate that does not contain any treatment chemicals; hydrostatic test water that does not contain any treatment chemicals; potable water line flushings; and uncontaminated groundwater. If any of these discharges may reasonably be expected to be present and to be mixed with non-contact cooling water discharges, they must be specifically identified in the Notice of Intent (NOI).
 - (3) Limitations on Coverage. This permit does not authorize the following non-contact cooling water discharges:
 - a. Non-contact cooling water discharges with a total average daily flow of one (1.0) million gallons per day (MGD) or greater;
 - b. Non-contact cooling water discharges that contain any water treatment chemicals;
 - c. Non-contact cooling water discharges from facilities with an existing RIPDES individual permit, which was issued in accordance with Part IV.W. of this permit;
 - d. Non-contact cooling water discharges that the Director of the Department of Environmental Management has found to be or may reasonably be expected to be contributing to a violation of water quality standards;
 - e. Non-contact cooling water discharges into the terminal reservoir of a public drinking water supply;
 - f. Non-contact cooling water discharges that may adversely affect a listed, or a proposed to be listed, endangered or threatened species or its critical habitat;
 - g. Non-contact cooling water which is co-mingled with discharges that are not an allowable discharge under this permit;
 - h. Non-contact cooling water which uses ground water, that is impacted by a release of a toxic or hazardous material; and
 - i. Non-contact cooling water which is contaminated from failing or leaking heat exchangers or process equipment being cooled.
 - j. Non-contact cooling water that uses surface water as its source.

- C. Authorization. To be covered under this general permit, owners or operators of non-contact cooling water discharges must submit to the Director a standardized Notice of Intent (NOI) form. All NOIs must be submitted to the Director by hard copy (See Part III.B.), unless an electronic reporting tool becomes available during the period covered under this permit that DEM implements (See 40 CFR 127.26(h)). Discharges of non-contact cooling water from three-family or smaller residential buildings, are authorized to discharge upon the effective date of this permit and are not required to submit a NOI form. Upon review of an NOI, the Director may deny coverage under this permit at any time and require submittal of an application for an individual or an alternative general permit.

(1) *Deadlines for Requesting Authorization*

- a. Facilities discharging non-contact cooling water which were authorized under the previous general permit dated October 1, 2013, that intend to obtain coverage under this general permit; shall submit a NOI within thirty (30) days of the effective date of this permit.
- b. Facilities that propose to discharge non-contact cooling water and were not authorized under the previous general permit dated October 1, 2013, must submit a NOI at least ninety (90) days prior to the commencement of such discharge.

(2) *Granting of Authorization*

- a. Facilities that were authorized under the previous general permit dated October 1, 2013 that have submitted a complete NOI within thirty (30) days of the effective date of this permit, shall be automatically granted authorization to discharge upon departmental receipt of a complete NOI. Unless notified by the Director to the contrary, owners or operators who submit such notification are authorized to discharge under the terms and conditions of this permit. As indicated in Part II.H.(1)., monitoring shall begin on the first day of the quarter immediately following the date of authorization.
 - b. For facilities which commence the discharge of non-contact cooling water after the effective date of this permit and which were not authorized under the previous general permit dated October 1, 2013, authorization will be granted ninety (90) days after the submittal of a complete NOI, unless otherwise notified by the Director in writing. Regardless of whether the NOI was actually reviewed by this department, or it became approved because of this department's failure to act within the designated timeframe, the permittee is still responsible for upholding all permit conditions and any other applicable state or federal regulations. As indicated in Part II.H.(1)., monitoring shall begin on the first day of the quarter immediately following the date of authorization.
 - c. Discharges of non-contact cooling water from three-family or smaller residential buildings, shall automatically be granted authorization to discharge on the effective date of this permit. The permittee is still responsible for upholding all permit conditions and any other applicable state or federal regulations.
- D. Termination of Coverage. Owners and/or operators of facilities must notify the Director in writing when discharge(s) of non-contact cooling water no longer occur at the facility. At that point, coverage under this permit is terminated. At a minimum, the following information is required to terminate coverage under this permit:

- (1) Owner's name, mailing address, and telephone number;
- (2) Operator's name, mailing address, and telephone number;

- (3) Name and location of the facility;
 - (4) RIPDES non-contact cooling water permit number; and
 - (5) Certification that non-contact cooling water discharge no longer occurs.
- E. Failure to Notify. Owners or operators, who fail to notify the Director of their intent to be covered under a general permit in accordance with Part I.C. and discharge to waters of the State or to a separate storm sewer system without a RIPDES permit, are in violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act and are subject to legal action.

II. PERMIT CONDITIONS

A. Definitions in this Section

Definitions of terms found in this permit, including “Freshwater”, “Saltwater”, “Habitat”, and more, can be found in the Rhode Island Water Quality Regulations (See 250-RICR-150-05 §1.4). Waterbody classifications and fishery designations (e.g. Warm Water vs. Cold Water) can be found in 250-RICR-150-05 §1.25.

- B. The discharge shall not cause visible discoloration of the receiving waters.
- C. The discharge shall contain neither a visible oil sheen, foam, nor floating solids.
- D. The permittee must develop and implement appropriate best management practices to ensure that discharges of non-contact cooling water are not contaminated by failing/leaking heat exchangers. Appropriate best management practices may include but not be limited to; material inventory, preventative maintenance and equipment replacement, testing of equipment (dye testing, eddy current testing, pressure testing), routine visual observations of equipment and discharge, or sampling of the discharge for an indicator pollutant. The permittee must prepare an annual self-certification report, documenting that the discharge is not contaminated, by January 15th of each year for the previous calendar year. The self-certification report must summarize the selected best management practices used to determine that the discharge is not contaminated and include the dates of all inspections, testing, maintenance/equipment replacement; the results of all inspections and testing; the personnel performing inspections, testing and maintenance; and any actions taken in response to the inspections and testing. The statement must also identify incidents where discharges have been contaminated by failing/leaking heat exchangers. The statements shall be maintained on site for a minimum period of five (5) years and must be certified in accordance with Part IV.I. of the permit. These reports are subject to DEM review. If at any time the DEM requests that these reports be submitted, the permittee shall submit these reports to the DEM in accordance with the DEM's request.

E. Monitoring Requirements and Limitations

During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge non-contact cooling water. Each outfall discharging non-contact cooling water shall be limited and monitored by the permittee as specified below, in accordance with the receiving water classification, when indicated. Monitoring for each outfall is conducted and reported in accordance with Part II.H. and Part IV.R.

Effluent Characteristic	Dilution Factor ¹	Discharge Limitations		Monitoring Requirements		
		Avg. Monthly	Max Daily	Monitoring Frequency		Sample Type
				Less than or equal to 50,000 GPD	More than 50,000 GPD	
Flow: All Discharges	-----	Report	XXX	1/Month	1/Week	Calculated ²
Temperature: Discharge to Freshwater, Warm Water Habitat	Less than Fifteen (15) ¹	-----	83 °F ³	1/Month	1/Week	Grab or Continuous ⁴
	Equal to or Greater than Fifteen (15) ¹	-----	92 °F ³	1/Month	1/Week	Grab or Continuous ⁴
Temperature: Discharge to Freshwater, Cold Water Habitat	Less than Fifteen (15) ¹	-----	68 °F ³	1/Month	1/Week	Grab or Continuous ⁴
	Equal to or Greater than Fifteen (15) ¹	-----	92 °F ³	1/Month	1/Week	Grab or Continuous ⁴
Temperature: Discharge to Saltwater Habitat	-----	-----	83 °F ⁵	1/Month	1/Week	Grab or Continuous ⁴
pH: Facilities that use a private water source and discharge to a Freshwater Habitat	-----	6.5 s.u. (min)	9.0 s.u. (max)	1/Month	1/Week	Grab or Continuous ⁴
pH: Facilities that use a private water source and discharge to a Saltwater Habitat	-----	6.5 s.u. ⁶ (min)	8.5 s.u. ⁶ (max)	1/Month	1/Week	Grab or Continuous ⁴
pH: Facilities that use a municipal water supply as its source water and discharge to either a Freshwater or Saltwater Habitat	-----	-----	A pH change of equal to or less than 0.5 s.u. ⁷	1/Month	1/Week	Calculated ⁷
Total Residual Chlorine: Facilities that use a municipal water supply as its source water and discharge to Freshwater Habitats (not Lakes or Ponds)	See Part II.F.	See Part II.F.	See Part II.F.	1/Quarter	1/Quarter	Grab ⁴
Total Residual Chlorine: Facilities that use a municipal water supply as its source water and discharge to Saltwater Habitat and Lakes or Ponds	-----	0.02 mg/L ⁸	0.02 mg/L ⁸	1/Quarter	1/Quarter	Grab ⁴

XXX Signifies a parameter that, for each permittee, will be limited based upon the maximum non-contact cooling water design flow in the applicant's Notice of Intent.

Sampling shall be performed on a typical operating day.

¹ See NCCW NOI Instructions for dilution factor calculations.

² Flow shall be either calculated using a flow totalizer or estimated using the cooling water pumping rate.

³ In no case shall the discharge cause the temperature of the receiving water to be raised more than 4.0 °F.

⁴ Compliance with these limitations shall be determined by taking a minimum of four (4) grab samples equally spaced over the course of a normal operating day. The maximum value to be reported is the highest individual measurement obtained during the monitoring period. The minimum value to be reported is the lowest individual measurement obtained during the monitoring period. Continuous monitoring devices may be used to measure effluent and water body temperature and pH. When required, the maximum temperature and monthly average temperature shall be reported based on the continuous dataset.

⁵ In no case shall the discharge cause the temperature of the receiving water to be raised more than 4.0 °F (from October 1 through June 15) or more than 1.6 °F (from June 16 through September 30).

⁶ In no case shall the discharge cause the pH of the receiving water to be more than 0.2 s.u. outside the normally occurring range.

⁷ Sampling for influent and effluent shall be conducted using appropriate allowances for hydraulic detention (flow-through) time. These values will then be used to calculate the pH change. The maximum value to be reported is the largest individual pH change calculated for the reporting period. In no case shall the discharge cause the receiving water's pH to be outside the range of 6.5-9.0 s.u. for discharge to all Freshwater Habitats or the pH to be outside the range of 6.5-8.5 s.u. for Saltwater Habitats.

⁸ The limit at which compliance/noncompliance determinations will be based is the Quantitation Limit which is defined as 0.02 mg/L for TRC. These values may be reduced by permit modification as more sensitive methods are approved by EPA and the State. The following methods may be used to analyze the grab samples: (1) Low Level Amperometric Titration, Standard Methods (18th Edition) No. 4500-CI E; (2) DPD Spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No. 4500-CI G.

F. Total Residual Chlorine (Facilities Using Municipal Water Only).

(1) *Facilities Discharging to Flowing Freshwater Receiving Bodies Excluding Lakes or Ponds*

Any facility using municipal water as their source of non-contact cooling water is required to limit and monitor the amount of Total Residual Chlorine (TRC) in their effluent. The maximum daily and average monthly concentration of TRC allowed in the effluent are based on the appropriate water quality criterion and the available dilution of the receiving water. This is expressed in the following equation:

$$\text{Effluent Limit} = (\text{Dilution Factor}) \times (\text{Water Quality Criteria})$$

Note that the permittee's TRC effluent limits will be no greater than 1.0 mg/L, regardless of the dilution factor of the receiving water (See fact sheet). The appropriate water quality criteria for the calculation are shown below:

Freshwater acute = 0.019 mg/L (19 ug/l); use for daily maximum

Freshwater chronic = 0.011 mg/L (11 ug/l); use for average monthly

The dilution factor will be based on the same 7Q10 flow the permit applicant determines for effluent temperature limits, as written in the NOI.

(2) *Facilities Discharging to Saltwater Receiving Bodies, or Lakes and Ponds*

Any facility using municipal water as their source of non-contact cooling water is required to limit and monitor the amount of Total Residual Chlorine (TRC) in their effluent. The maximum daily and average monthly concentration of TRC allowed in the effluent is 0.02 mg/L.

TRC concentrations are required to be measured (analyzed) within 15 minutes of collection of the sample per 40 CFR 136. Given the TRC limits of this permit, sampling methods require that TRC detection limits be at least 0.02 mg/L. The following methods may be used to analyze the grab samples: (1) Low Level

Amperometric Titration, Standard Methods (18th Edition) No. 4500-CI E; (2) DPD Spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No. 4500-CI G.), all data below the detection level of 0.02 mg/L shall be reported as non-detect.

(3) *Exemptions*

Facilities may be exempt from TRC sampling requirements if:

- a. When discharging to a freshwater body the point of discharge from the facility is at least 2100 feet from the receiving water body (i.e. the discharge is to a stormwater system that conveys the NCCW discharge to the receiving water), or;
- b. When discharging to a saltwater body the point of discharge from the facility is at least 2400 feet from the receiving water body, or;
- c. If the facility has four consecutive quarters of non-detection for TRC the facility may request a waiver from DEM to be exempt from TRC requirements for the remainder of the permit period or until DEM determines there is a reason to resume sampling.

If the facility meets the requirements for at least one of these exemptions, the facility must submit a written request to DEM (See Part III.B. for where to submit). The exemption is only granted upon approval by DEM. If granted approval, the facility may be exempt from TRC monitoring for the effective period of the permit, unless DEM determines there is a reason to resume testing.

- G. Monitoring Requirements and Limitations for Three-Family or Smaller Residential Geothermal Discharges. Discharges from residential geothermal heat exchangers at three-family or smaller residential buildings do not have any specific reporting requirements. However, discharges from these facilities into saltwater receiving waters shall not cause the temperature of the receiving water be raised more than 4.0 °F (from October 1 through June 15) or more than 1.6 °F (from June 16 through September 30) and shall not cause the pH of the receiving water to be more than 0.2 s.u. outside of the normally occurring range. Discharges from these facilities into freshwater receiving waters shall not cause the receiving water's temperature to be raised more than 4.0 °F or the pH to be outside of the range of 6.5 – 9.0 s.u. DEM may require sampling to confirm that the above limits are being met on a case-by-case basis.

H. Monitoring and Reporting

(1) Monitoring

All monitoring required by this permit shall begin on the first day of the quarter immediately following authorization and shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

(2) Submittal of DMRs Using NetDMR

Monitoring results obtained during the previous calendar quarter shall be summarized and reported to DEM in discharge monitoring reports (DMRs) submitted electronically using the NetDMR reporting tool (<https://netdmr/epa.gov>). When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to DEM.

The first report is due for the calendar quarter immediately following the date in which the facility obtained coverage under this general permit. Testing shall be reported as follows:

<u>Quarter Testing to be Performed</u>	<u>Report Due No Later Than</u>	<u>Results Submitted with DMR for</u>
January 1 – March 31	April 15	March
April 1 – June 30	July 15	June
July 1 – September 30	October 15	September
October 1 - December 31	January 15	December

(3) Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

- DMR Cover Letters
- Below Detection Limit summary tables

All other reports should be submitted to DEM as a hard copy via regular US mail (See Part II.H.(4). below).

(4) Submittal of Requests and Reports to DEM

The following requests, reports, and information described in this permit shall be submitted as hard copy to the DEM.

- a. Transfer of Permit notice
- b. Request for changes in sampling location
- c. Request for termination
- d. Written notifications required under Part II
- e. Notice of unauthorized discharges

These reports, information, and requests shall be submitted to DEM by hard copy mail to the address listed at Part III.B.

(5) Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I - IV of this permit, shall be made to the DEM. This includes verbal reports and notifications required under Part IV.G. General Requirements. Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night.

- I. Failure to Comply. Failure to meet the monitoring requirements under this part of the permit constitutes a violation of Chapter 46-12 of Rhode Island General Laws and the Clean Water Act; and may be subject to legal action.

III. NOTICE OF INTENT REQUIREMENTS

A. Contents of Notice of Intent

- (1) The owner's name, mailing address, telephone number, ownership status, and status as a Federal, State, private, public, or other entity;

- (2) The operator's name, address, telephone number, ownership status and status as a Federal, State, private, public or other entity;
 - (3) Up to four (4) digit SIC code that best represents the principal products or activities provided by the facility;
 - (4) The location of each outfall, including the latitude and longitude of the approximate center of the outfall to the nearest 15 seconds, for which the NOI is being submitted;
 - (5) The name of the receiving water(s) or if the discharge is through a municipal separate storm sewer, the name of the operator of the storm sewer system and the ultimate receiving water(s);
 - (6) The type of receiving water (e.g., Saltwater, Warm Water Freshwater Habitat, or Cold Water Freshwater Habitat);
 - (7) A topographic map of the area extending at least extending one (1) mile beyond the property boundaries of the facility that clearly shows the legal boundaries of the facility and the location of each intake structure and each outfall;
 - (8) A list of any allowable discharges, as described in Part I.B.(2). of this permit, that are known or are reasonably expected to be present at the site;
 - (9) A line drawing of the facility that shows both the non-contact cooling water and the allowable discharge water flow through the facility from intake to discharge and describes any treatment that the water receives;
 - (10) An identification of the source of the non-contact cooling water;
 - (11) A description of the average frequency (days/week), duration (hours/day), and flow (gallons per minute) of the non-contact cooling water discharge;
 - (12) For discharges of non-contact cooling water that commence after the effective date of this permit, the NOI must indicate the anticipated date on which the facility will begin to discharge; and
 - (13) Any additional information that may be required by the Department to be included as part of the NOI, if the Director determines that such information is reasonably necessary to determine whether or not to authorize the discharge under this permit.
 - (14) For discharges to freshwater and for facilities using a municipal water supply as their source for non-contact cooling water, calculate the approximate instream dilution factor based on an aquatic low-flow analysis. (See the NOI instructions to determine how to calculate an instream dilution factor.)
- B. Where to Submit. A completed and signed NOI, in accordance with Part IV.I., must be submitted to:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

- C. Deficient NOI. If any portion of the NOI does not meet one or more of the minimum requirements of this part, then the applicant will be notified by a deficiency letter at any point within the review period. It is the responsibility of the applicant to make all required changes and resubmit the NOI. The review period will recommence upon the receipt of the revised NOI.

IV. GENERAL REQUIREMENTS

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the CWA and is grounds for enforcement action which may include permit termination, revocation and reissuance, modification, or for the denial of a permit renewal application and the imposition of penalties.
- (1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate this requirement.
 - (2) Section 309 of the CWA provides significant penalties for any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the CWA or any permit condition or limitation implementing any such sections in a permit issued under Section 402 of the CWA. Any person who violates any condition of this permit is subject to a civil penalty of up to \$25,000 per day of such violation, as well as any other appropriate sanctions provided by Section 309 of the CWA. Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of up to \$10,000 or by imprisonment of not more than two (2) years, or by both.
 - (3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than \$25,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than \$25,000 per day of such violation and imprisonment for not more than five (5) years, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than \$5,000 for each instance of violation or by imprisonment for not more than thirty (30) days, or both.
- B. Continuation of the Expired General Permit. Provided the permittee has re-applied in accordance with paragraph C below, an expired general permit continues in force and effect until a new general permit is issued. Only those facilities previously authorized to discharge under the expired permit are covered by the continued permit.
- C. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- D. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the 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 this permit.
- E. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment.
- F. Change in Discharge. All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards

are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new RIPDES application at least 90 days prior to commencement of such discharges or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously listed.

G. Reporting Requirements

- (1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.
- (2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.
- (3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.
- (4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger the health or the environment by calling DEM at (401) 222-4700 or (401) 222-3070 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and 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 reoccurrence of the noncompliance.

The following information must be reported immediately:

- a. Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or
- b. Any upset which causes a violation of any effluent limitation in the permit; or
- c. Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

- (6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph G.(5). of this section.
- (7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit

application or in any report to the Director, they shall promptly submit such facts or information.

- H. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall furnish to the Director any copies that are required to be kept as part of this permit.
- I. Signatory Requirements. All Notices of Intent, reports, certifications or information either submitted to the Director, or that this permit requires to be maintained by the permittee, shall be signed and certified in accordance §1.12 of the RIPDES regulations (See 250-RICR-150-10 §1.12). Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes a false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of up to \$25,000 per violation, or by imprisonment for not more than thirty (30) days per violation, or by both.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the CWA.
- K. Release in Excess of Reportable Quantities. If a release in excess of reportable quantities occurs, the permittee must notify the Office of Water Resources immediately. This permit does not relieve the permittee of the reporting requirements of 40 CFR 117 and 40 CFR 302.
- L. Property Rights. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.
- M. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
- N. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require the operator to apply for and obtain an individual RIDES permit as stated in Part IV.W. of this permit.
- O. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.
- P. Other Laws. The issuance of a permit does not authorize any injury or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.
- Q. Proper Operations and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operations of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

R. Monitoring and Records

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.
- (2) The permittee shall retain records of all monitoring including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
- (3) Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
- (4) Monitoring must be conducted according to test procedures approved under 40 CFR 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.
- (5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of up to \$27,500 per violation or by imprisonment for not more than six months per violation, or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of up to \$25,000 per violation, or by imprisonment for not more than thirty (30) days per violation, or by both.
- (6) Monitoring results must be reported on a Discharge Monitoring Report (DMR) using the electronic reporting application NetDMR (See Part II.H.)
- (7) If the permittee monitors any pollutants more frequently than required by this permit, using test procedures approved under 40 CFR 136, applicable State regulations, or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

S. Bypass

“Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.

- (1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice

- a. *Anticipated Bypass.* If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
- b. *Unanticipated Bypass.* The permittee shall submit a notice of an unanticipated bypass as required in 250-RICR-150-05 §1.14(R).

(3) Prohibition of Bypass.

- a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - i. The bypass was unavoidable to prevent loss of life, personal injury or severe property damage, where “severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonable be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in productions;
 - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee should have installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - iii. The permittee submitted notices as required in paragraphs IV.S.(2). above.
- b. The Director may approve an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (4).a. of this section.

T. Upset Conditions

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

- (1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the causes(s) of the upset;
 - b. The permittee facility was at the time being properly operated;

- c. The permittee submitted notice of the upset as required in 250-RICR-150-05 §1.14(R); and
 - d. The permittee complied with any remedial measures required under 250-RICR-150-05 §1.14(E).
- (3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.
- U. Inspection and Entry. The permittee shall allow the Director or an authorized representative of DEM, upon presentation of credentials and other documents as may be required by law, to:
 - (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
 - (2) Have access to and copy at reasonable times; any records that must be kept under the conditions of this permit;
 - (3) Inspect at reasonable times any facilities, equipment, or operations regulated or required under this permit; and
 - (4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island General Law.
- V. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: violation of any terms or conditions of this permit; obtaining the permit by misrepresentation or failure to disclose all relevant facts; or a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- W. Requiring an Individual Permit or an Alternative General Permit
 - (1) The Director of the Department of Environmental Management (DEM) may require any owner or operator authorized to discharge under this permit to apply for and obtain either an individual or an alternative RIPDES general permit. Any interested person may petition the Director to take action under this paragraph. The Director may determine at his or her own discretion that an individual or an alternative general permit is required.
 - (2) Any owner or operator authorized to discharge by this permit may request to be excluded from coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the Director. The request may be granted by issuance of an individual permit or an alternative general permit, if the reasons cited by the owner or operator are adequate to support the request. The Director shall notify the permittee within a timely fashion as to whether or not the request has been granted.
 - (3) If a facility requests or is required to obtain coverage under an individual or an alternative general permit, then authorization to discharge non-contact cooling water under this permit shall automatically be terminated on the date of issuance of the individual or the alternative general permit. Until such time as an alternative permit is issued, the existing general permit remains fully in force.

- X. Reopener Clause. The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State Law. In accordance with §1.16 and §1.17 of the RIPDES regulations (See 250-RICR-150-10-1), if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State Law which is more stringent than any limitation on the pollutants limited in this permit, or controls pollutants not limited in the permit; then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.
- Y. Availability of Reports. Except for data determined to be confidential under Part Z. below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM at 235 Promenade Street, Providence Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under section 46-12-14 of the Rhode Island General Laws.
- Z. Confidentiality of Information
- (1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter, consistent with Rhode Island General Law 38-2-2. Any such claim must be asserted at the time of the submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the public without further notice.
- (2) Claims of confidentiality for the following information will be denied:
- a. The name and address of any permit application or permittee;
 - b. Permit applications, permits and any attachments thereto; and
 - c. RIPDES effluent data.
- AA. Right to Appeal. Within thirty (30) days of receipt of notice of final authorization, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to appeal the decision to be covered under the general permit. The request for a hearing must conform to the requirements of §1.50 of the RIPDES Regulations (See 250-RICR-150-10 §1.50).



**RHODE ISLAND POLLUTANT DISCHARGE
 ELIMINATION SYSTEM (RIPDES)
 GENERAL PERMIT FOR
 NON-CONTACT COOLING WATER DISCHARGES
 NOTICE OF INTENT (NOI)**

Date Received
 Amount Received \$
 RIPDES# **RIG**
 Approval Date
 Data Entry Date
 Data Entry Initials
 Data Group Number: G2A, G2B, G3A

I. OWNER			
Formal Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ()
Contact Person:		Title:	
Email address of Owner:			
II. OPERATOR (if different from Owner)			
Formal Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ()
Facility Contact Person:		Title:	
Email address of Facility Contact Person:			
III. FACILITY INFORMATION			
Facility Name:			
Physical Address:			
Latitude of facility (in decimal degrees):		Longitude (in decimal degrees):	
Facility Type of Ownership: <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Tribal <input type="checkbox"/> Private <input type="checkbox"/> Other (specify):			
Primary SIC Code:		Type of Business:	
Secondary SIC Code:		Type of Business:	
IV. DISCHARGE INFORMATION			
Attach a topographic map of the facility including Property Boundaries of the Facility and the Location of Each Intake and Outfall Structure. If more than two outfalls, please attach separate sheet with additional outfalls and required information.			
Outfall #:	Latitude (in decimal degrees)		Longitude (in decimal degrees)
Is this an Existing Discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No		If No, Anticipated Discharge Date:	
Frequency of Discharge:	Days/Week:	Hours/Day:	Gallons/Min:
Outfall #:	Latitude (in decimal degrees)		Longitude (in decimal degrees)
Is this an Existing Discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No		If No, Anticipated Discharge Date:	
Frequency of Discharge:	Days/Week:	Hours/Day:	Gallons/Min:

V. RECEIVING WATER INFORMATION

If the facility has more than one outfall and outfalls discharge to different receiving water bodies, please attach separate sheet with required information.

Receiving Water Habitat Type: Saltwater Warm Water Freshwater Cold Water Freshwater

a. Identify the discharge pathway: Direct, Indirect, Storm Drain, River/brook, Wetlands,
 Other (describe): _____

b. Provide a narrative description of the discharge pathway, including the names of the receiving waters:

c. Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

- 1. For multiple discharges, number the discharges sequentially.
- 2. For indirect discharges, indicated the location of the discharge to the indirect conveyance and the discharge to surface waters. The map should include the location and distance to the nearest sanitary sewer.

d. Provide the Water Quality Classification of the receiving water: _____.

e. If the proposed discharge is to freshwaters, provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water for the point of discharge in cubic feet per second (cfs): _____.
Attach any calculation sheets used to support stream flow and dilution calculations.

f. Is the receiving water a listed 303(d) water quality impaired or limited water? Yes No, If yes for which pollutant(s)?:

g. Is there a TMDL? Yes No If Yes, for which pollutants?

VI. NON-CONTACT COOLING WATER SYSTEM INFORMATION

Attach a line drawing of the non-contact cooling water flow through the facility including: Source of the intake water; all allowable discharges (see Part VIII); a flow schematic of the facility depicting all major processes that use non-contact cooling water and all sources of allowable discharges; the method of discharge (i.e., separate storm sewer system or surface water); the name of the receiving water; any control equipment (i.e., flow meters, valves, etc.); and the sample location.

Source of intake water: Private well water Municipal water supply

Is there an Existing RIPDES Permit for this Discharge: Yes No | If Yes Permit #:

Is the site/facility covered by any other DEM permit including: 1. Multi-sector storm water general permit, 2. Individual RIPDES Permit, if so please list them: _____

VII. DILUTION FACTOR (DISCHARGE TO FLOWING FRESHWATER ONLY)

Note: Attach Dilution Worksheet as well as StreamStats Report if used to determine dilution factor.

Receiving Water 7Q10 (cfs) at the point of discharge:

Total Combined System Design Flow (cfs): _____ Dilution Factor: _____

VIII. ALLOWABLE DISCHARGE INFORMATION

Types of Allowable Discharges that are Discharged:

- Steam Condensate that does not contain Treatment Chemicals
- Potable Water Line Flushings
- Hydrostatic Test Water that does not contain Treatment Chemicals
- Uncontaminated Groundwater
- Air Conditioner Condensate that does not contain Treatment Chemicals
- Non-Contact Cooling Water only

IX. CHEMICAL ADDITIVE CERTIFICATION

I certify under penalty of law that chemical additives are not used in the non-contact cooling water treatment system nor are any treatment chemicals added to any of the allowable discharges identified as being present in Section VII of this NOI.

Print Name _____

Print Title _____

Signature _____ Date _____

X. OWNER/OPERATOR CERTIFICATION

I certify under penalty of law that I have read and understood all terms and conditions of the above referenced General Permit. I also certify under penalty of law that this document and all attachments were prepared under the 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 submitted 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.

Print Owner Name _____

Print Owner Title _____

Signature _____ Date _____

Print Operator Name _____

Print Operator Title _____

Signature _____ Date _____

INSTRUCTIONS FOR THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) NOTICE OF INTENT (NOI) - GENERAL PERMIT FOR NON-CONTACT COOLING WATER DISCHARGES

Who Must File A Notice of Intent (NOI) Form

Discharges of non-contact cooling water to Waters of the State are prohibited without a Rhode Island Pollutant Discharge Elimination System (RIPDES) permit. The owner/operator of a facility that has such a discharge must submit a Notice of Intent (NOI) and obtain coverage under the RIPDES General Permit prior to discharge. If you have questions about whether you need a permit, contact the RI Department of Environmental Management, RIPDES Program at 401-222-4700. An originally signed NOI form must be sent to:

RIDEM - Office of Water Resources
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

Please be sure to keep a copy for your files.

Section I - Owner Information

Give the legal name of the person, firm, public (municipal) organization, or any other entity that owns the facility described in this application (RIPDES Regulations 250-RICR-150-10 §1.4 & §1.12). The name of the owner may or may not be the same as the name of the facility. Do not use a colloquial name. Enter the complete address, email address, and telephone number of the owner.

Section II - Operator Information

If the operator is the same as the owner, enter "Same as Owner". Give the legal name of the person, firm, public (municipal) organization, or any other entity that operates the facility described in this application (RIPDES Regulations 250-RICR-150-10 §1.4 and §1.12). The name of the operator may or may not be the same as that of the facility. The operator is the entity that controls the day-to-day operation of the facility. Do not use a colloquial name. Enter the complete address, email address, and telephone number of the operator.

Section III – Facility Information

Enter the name and physical address of the facility which is being permitted. Also include the latitude and longitude of the facility (not the outfalls) in decimal degrees using the WGS84 map datum. For example, DEM's location at 235 Promenade Street would be 41.828745, -71.419282. Enter the type of ownership that describes the facility using the provided check boxes. Enter the facility's primary and secondary four-digit Standard Industrial Classification (SIC) Codes that best represent the products produced or activities provided by the facility.

Section IV – Discharge Information

Attach a topographic map, which extends at least one (1) mile beyond the property boundaries of the facility that clearly shows the legal boundaries of the facility and the location of each intake and outfall structure. The NOI must also list the latitude and longitude, in decimal degrees, of the center of each outfall structure. Enter the

frequency of non-contact cooling water discharge, the flow in gallons per minute and, for new discharges, the date on which the facility anticipates initiating discharge. Additional outfalls should be included on a separate sheet if there are more than two.

Section V - Receiving Water Information

The receiving water habitat type, water quality classification, 303(d) listings, and TMDL status can be determined by following these steps:

- Step 1: Go to: <http://www.dem.ri.gov/maps/index.htm>
- Step 2: Select Environmental Resource Map.
- Step 3: Select the "DEM Water Quality and Impairments" Folder listed under the LAYERS heading.
- Step 4: Select the Zoom from icons listed on the left-hand legend and zoom in to the area in the vicinity of the discharge and the ultimate receiving water body.
- Step 5: Select the information feature (i icon in red circle) on the left-hand legend, and click on the receiving water body on the vicinity of the ultimate discharging point. Information regarding the receiving water body will be shown on the bottom of the screen, such as the name of the water body ("NAME"), cold/warm water habitat classification ("Cold"), and water body classification ("WQS").

Also identify the discharge pathway (part a of Section V), whether the discharge is directly to the receiving water body, indirectly discharging, discharging to a storm drain, etc. Also provide a narrative description of the discharge pathway, stating briefly the path the discharge takes from the facility to the receiving water body.

Section VI - Non-Contact Cooling Water System Information

If the source of non-contact cooling water is from a private well, check the "Private well water" box.

If the facility uses municipal well water for non-contact cooling water, check the "Municipal water supply" box. Note that if the municipal water supply box is checked, the facility is required to monitor for Total Residual Chlorine and must also:

- i. Complete the dilution worksheet, if discharging to a Freshwater body (See Section VII).

Attach a line drawing of the facility that identifies the flow of non-contact cooling water through the facility from intake to discharge. The line drawing must clearly identify the source of the non-contact cooling water. Also attach a description (i.e., a brief narrative and cut sheets/drawings) of the type of equipment that the non-contact

cooling water is used for.

Section VII - Dilution Factor

NOTE: Section VII must be completed by **all** facilities discharging to flowing Freshwater bodies. Discharges to saltwater bodies, lakes, ponds, and wetlands are given a dilution factor of one (1).

Complete the attached worksheet to determine the 7-day 10 year (7Q10) flow at the point of discharge and the dilution factor. The worksheet includes information on StreamStats, used to determine the relevant information for obtaining the 7Q10 of a given waterbody. Enter the 7Q10 in the box labeled "Receiving water 7Q10". Enter the dilution factor and the total combined system design flow in the appropriate boxes. The total combined treatment system design flow is the sum of the non-contact cooling water flows and the allowable discharge water flows for all outfalls. Please note that DEM shall use a dilution factor of one (1) for all discharges to saltwater bodies, lakes, ponds, and wetlands. DEM also reserves the right to specify the dilution factor to be used in a given watershed.

If a point of discharge is located in a watershed without a USGS gage that StreamStats doesn't compile a report for, then one of the following methods may be used to estimate the 7Q10:

1. USGS Report 95-4299, *Low-Flow Characteristics of Selected Streams in Northern Rhode Island*.

This report uses an equation based on statistical methods to estimate the 7Q10 flow of selected streams with partial record stations. Flow data from an index station is required.

2. USGS Report 93-4046, *Low-Flow Characteristics of Selected Streams in Rhode Island*.

This report provides an equation to estimate the 7Q10 flow at ungauged sites based on the drainage area and the distribution of geologic materials in the drainage area.

The areas of the drainage basin underlain by coarse-grained stratified drift and underlain by till-covered bedrock are required to use this method.

3. USGS Report 93-4092, *Effects of Surficial Geology, Lakes and Swamps, and Annual Water Availability of Low Flows of Streams in Central New England and Their Use in Low-Flow Estimation*.

This report contains equations to estimate the 7Q10 flow using information regarding surficial geology, area of swamps and lakes, mean basin elevation, mean runoff, main stream length channel, and drainage basin area.

These reports can be obtained by contacting the USGS at: U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Box 25286, MS 517, Denver Federal Center, Denver, CO, 80225.

Section VIII – Allowable Discharge Information

Identify any allowable discharges that are discharged from the facility.

Section IX – Chemical Additive Certification

Provide certification that no chemical additives are added to the discharge. Note: If chemical additives are used, the discharge is not eligible for coverage under the General Permit.

Section X - Owner/Operator Certification

State and Federal statutes provide for severe penalties for submitting false information on this application form and require this application to be signed as follows (RIPDES Regulations 250-RICR-150-10 §1.12):

For a corporation: by a responsible corporate officer, which means: (i) 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, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

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

For a Municipality, State, Federal or other public facility: by either a principal executive officer or ranking elected official.

Dilution Determination Worksheet for use with the RIPDES General Permit for Non-Contact Cooling Water Discharges

Dilution Factor (DF)

A DF for sites that discharge to freshwater receiving waters in Rhode Island is calculated using the equation below (Item 4). Alternate calculation methods for DFs may be acceptable if approved by the DEM. A DF for sites that discharge to saltwater receiving waters or non-flowing freshwater bodies (ponds or lakes) in Rhode Island is assumed to be 1:1, unless otherwise approved on a case-by-case basis by the DEM.

1. Using StreamStats: This online application is appropriate for determining drainage area ratios for nearby gages and uses the 7Q10s for available gages from the U.S. Geological Gazetteer reports (1984 Wandle et al.). StreamStats is available at:

<http://water.usgs.gov/osw/streamstats>

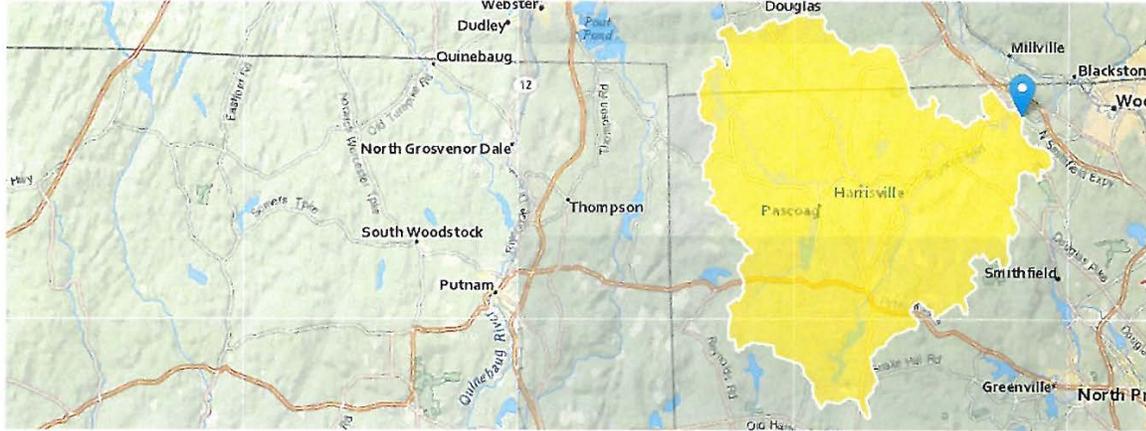
2. Follow the instructions in StreamStats. The location chosen must be where the NCCW discharges to the receiving water body. When the location has been chosen and the basin delineated, select the “Low-Flow Statistics” for the Regression Based Scenario. Then click Continue. This will bring up the Build a Report section. Again, click Continue.
3. Include a printout or otherwise attach the StreamStats Report with the NOI. An example StreamStats Report is included on the following page. The report should contain the 7 Day 10 Year Low Flow value for the selected location.
4. Calculate the dilution factor. 7Q10 indicates the “7 Day 10 Year Low Flow” as printed on the StreamStats Report. Use the following formula:

$$DF = \frac{\{(7Q10) + (Total\ Combined\ System\ Design\ Flow)\}}{\{Total\ Combined\ System\ Design\ Flow\}}$$

EXAMPLE STREAMSTATS REPORT

StreamStats Report

Region ID: RI
 Workspace ID: RI20180831155611140000
 Clicked Point (Latitude, Longitude): 41.99838, -71.57297
 Time: 2018-08-31 11:56:26 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	89.8	square miles
STRDENED	Stream Density -- total length of streams divided by drainage area, edited from NHD	2.21	miles per square mile

Low-Flow Statistics Parameters (100 Percent (89.8 square miles) Statewide Low Flow 2014 5010)

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	89.8	square miles	0.52	294
STRDENED	Stream Density Edited	2.21	miles per square mile	0.94	3.49

Low-Flow Statistics Flow Report (100 Percent (89.8 square miles) Statewide Low Flow 2014 5010)

PII: Prediction Interval-Lower, PIU: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIU
7 Day 2 Year Low Flow	18.9	ft ³ /s	4.08	87.4
7 Day 10 Year Low Flow	9.15	ft ³ /s	1.17	71.3

Low-Flow Statistics Citations

Bent, G.C., Steeves, P.A., and Waite, A.M., 2014, Equations for estimating selected streamflow statistics in Rhode Island: U.S. Geological Survey Scientific Investigations Report 2014-5010, 65 p. (<http://dx.doi.org/10.3133/sir20145010>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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