

## **Response to Comments on Draft National Pollutant Discharge Elimination System (NPDES) General Permits for Noncontact Cooling Water (NCCW) Discharges – Permits Nos. MAG250000 (Massachusetts) and NHG250000 (New Hampshire)**

### **Introduction:**

In accordance with the provisions of 40 C.F.R. Section 124.17, this document presents EPA's responses to comments received on the draft NPDES General Permits for noncontact cooling water (NCCW) discharges (MAG250000 and NHG250000). The Response to Comments (RTC) explains and supports the EPA determinations that form the basis of the final General Permits. The notice of availability of the draft NPDES General Permits for NCCW discharges to certain waters of the Commonwealth of Massachusetts (MAG250000) and the State of New Hampshire (NHG250000) was published in the [Federal Register](#) on July 5, 2007. The public comment period expired on August 6, 2007. Comments were received on the draft General Permits from the commenters listed below.

This RTC document also includes an explanation of the changes made between the draft General Permits and final General Permits. While the final General Permits are substantially similar to the draft General Permits, the EPA did revise certain aspects of the permits as a result of the comments. In addition, EPA noted several clerical errors and a now obsolete web page reference in the draft General Permits, which have been corrected (See "Changes to Permit, item 44" below). EPA also identified several temperature limits, which were derived using Massachusetts water quality standards that could have been expressed in clearer terms. For example, Massachusetts water quality standards specify that the 83 degree F maximum temperature for warm water fisheries is a value "not to exceed", while the 68 degree F daily maximum temperature limit for cold water fisheries shall be based on the mean of the daily maximum temperature over a 7 day period. These improvements, clarifications, and corrections are summarized below and are reflected in the final General Permits. For simplicity, the two General Permits, MAG250000 and NHG250000, will hereafter be referred to as the General Permit in the remainder of this RTC document.

### **Commenters:**

1. General Electric Company (GE)
2. Tyco Valves & Controls (Tyco)
3. New Hampshire Department of Environmental Services (NHDES)
4. Connecticut River Watershed Council (CRWC)
5. Conservation Law Foundation (CLF)
6. New Hampshire Department of Environmental Services (NHDES) - New Hampshire Coastal Program (NHCP)
7. United States Fish and Wildlife Service (USFWS)

## **Changes to Permit:**

1. General Permit, Page 3 and Page 9, on each of these two cover pages (for Parts 1 and 2), paragraph 2 has been clarified regarding co-mingled waste stream by adding that “any discharges other than NCCW are either covered by another NPDES permit or excluded from requiring an NPDES permit by EPA regulation or statute.”
2. General Permit, Pages 4-5, Part 1.1, the discharge limits and monitoring requirements table has been modified. The monitoring frequency for discharges to a cold water fishery has been changed from 1/week to 3/week and the water body monitoring has been changed from 1/Quarter to 1/week. Former footnote 3 (now footnote 5) has been corrected to reflect the change from quarterly to weekly monitoring. Two new footnotes (new footnotes 3 and 4) have been added to clarify Massachusetts temperature water quality requirements. Specifically, Class A and B warm water fishery temperature limit of 83 °F is a value not to be exceeded, while Class A and B cold water fishery temperature limit is based on the mean of the daily maximum temperature over a 7 day period. Original footnotes 3– 9 are now renumbered as footnotes 5-11. Maximum temperature change of 5 °F requirement has been moved in the table from Class A waters to Class B waters.
3. General Permit, Page 5, Part 1.1, footnote 1, has been changed to make the footnote text consistent with Page 10, Part 2.1, footnote 1.
4. General Permit, Page 7, Part 1.2.6, condition has been changed to include both the discharge and intake.
5. General Permit, Page 10, Part 2.1, the discharge limits and monitoring requirements table has been corrected to include the data for Total Residual Chlorine discharges to fresh water.
6. General Permit, Page 10, Part 2.1, footnote 1, the potential for discharge flows greater than 1.0 million gallons a day (MGD) in New Hampshire has been removed and the footnote text has been made consistent with Page 5, Part 1.1, footnote 1.
7. General Permit, Page 11, Part 2.2.3, condition has been changed to include both the discharge and intake.
8. General Permit, Page 13, Part 2.3, item 4, the word “discharge” has been corrected to “discharger”.
9. General Permit, Page 13, Part 3.1, the potential for discharge flows greater than 1.0 MGD in New Hampshire has been removed, and following clarification has been added to the General Permit’s applicability requirements: “This General Permit will cover discharges of NCCW in Massachusetts and New Hampshire of 1.0 million gallons a day (MGD) or less per permitted facility and cooling in water intake structure (CWIS) surface water withdrawals of 1.0 MGD or less per permitted facility .

10. General Permit, Page 14, Part 3.3.9 has been edited to read “Discharges that the U.S. Fish and Wildlife Service and/or the National Oceanic & Atmospheric Administration Fisheries Service (collectively referred to as the “Services”) determines may adversely affect the continued existence of any federally-listed endangered or threatened species or may adversely impact or destroy critical habitat of such species.

11. General Permit, Page 15, Part 3.3.15, the example of situations where an individual permit is required described in the seventh bullet has been clarified to include impacts from not only the discharge but also the intake.

12. General Permit, Page 16, Part 3.4.1 and Appendix 2, pages 3, 4, 9 and 10, and Appendix 2.1 have been changed to include the link to the U.S. Fish and Wildlife (USF&W) site at <http://www.fws.gov/northeast/endangered/>

13. General Permit, Page 19, Part 4.3.a., the fourth general BTA requirement has been edited. The second sentence of the bullet has been deleted and replaced with the following language: “If practicable, this program shall include inspections of all locations where impingement may occur, at a minimum frequency of three times a week at varying times of day, operating conditions, and source water conditions. All inspections must be recorded in writing, and this inspection record shall include the date, time, presence or absence of impinged organisms, and the name of the inspector. If organisms are observed, the permittee must record the following information: the number, species and length of the impinged fish; the condition of the fish (dead or alive); and any actions taken by the facility (e.g. fish returned to river, fish collected, cooling water intake flow reduced, etc.). If the applicant determines that this monitoring program frequency and/or protocol are not practicable, the applicant shall provide in its NOI an explanation of this determination, an alternate frequency and/or protocol, and an explanation of why the alternative frequency and/or protocol are adequate to determine the number of impinged fish and invertebrates on the facility’s CWIS.”

14. General Permit, Page 20, Part 4.3.a, an additional general BTA recommendation has been added (as the fifth bullet in the final General Permit) that reads “If the permittee observes four (4) or more fish on the CWIS during any one of the following activities or situations, this would qualify as an unusual impingement event, warranting notification as described below: 1) during a regular impingement monitoring program observation event, 2) at any time the CWIS is viewed, or 3) when the cumulative number of individual fish observed on the CWIS totals four (4) or more based on multiple observations over the course of any 24-hour period. The permittee shall report such an unusual impingement event to the Regional Administrator and the Commissioner within 24 hours by telephone. A written confirmation report shall be provided within five business days. These oral and written reports shall include the following information: the date and time of the unusual impingement event; the number, species and length of the impinged fish; the condition of the fish (dead or alive); and any actions taken by the facility (e.g. fish returned to river, fish collected, cooling water intake flow reduced, etc.).”

15. General Permit, Page 20, Part 4.3.a, an additional bullet has been inserted in the list of general BTA requirements as the sixth bullet in the final General Permit that reads as follows: Maintain a physical screening or exclusion technology with a maximum CWIS through-screen velocity of 0.5 feet per second (fps) or implement alternative steps of comparable effectiveness at minimizing the entrainment and impingement mortality of adult and juvenile fish in the CWIS.

16. General Permit, Page 20, Part 4.3.b, has been revised to read “six” general BTA requirements.

17. General Permit Page 20, Part 4.3.b, the second paragraph, the characterization of the source water body has been modified to include a characterization of the source water body’s aquatic life habitat: “The NOI shall include a characterization of the habitat provided for aquatic life by the source water body in the vicinity of the CWIS during the seasons when the CWIS may be in use.”

18. General Permit Page 21, Part 4.3.b, seventh .bullet; Appendix 4, Page 3, item 4; and Appendix 5, Page 4, Box 4 Continued, the words “as available from USGS or another appropriate source” were added at the end of “source water’s annual mean flow ...in cfs.”

19. Attachment C of the General Permit has been modified to reflect that additional required general BTA requirements are no longer potential BTA requirements.

20. Appendix 4.1, Notice of Intent Form, has been renumbered Appendix 5.

21. Appendix 4.2, Notice of Termination Form, has been renumbered Appendix 7.

22. Appendix 4.3, Agency Addresses, has been renumbered Appendix 6.

23. Appendix 5, Minimum Levels and Test Methods for Groundwater Sources of Noncontact Cooling Water has been renumbered Appendix 8.

24. The text in the General Permit, attachments and appendices that reference an appendix has been corrected to reflect the change in numbering for Appendices 4.1, 4.2, 4.3 and 5.

25. Appendix 2, Page 2, has been updated to include the documentation of the dwarf wedge mussel in the Connecticut River from Haverhill to Piermont, New Hampshire (Grafton County) and documentation of the northern red-bellied cooter in the Towns of Kingston and Middleborough, MA.

26. Appendix 2, the listing of federally listed endangered and threatened species in MA and NH has been updated with the listing posted on the USF&W endangered species web site on April 7, 2008.

27. Appendix 4 and Appendix 5, Page 2, 2.h, the words “For Massachusetts Facilities Only” have been added.
28. Appendix 4, page 4, item 6, and Appendix 5, page 4, item 6, the additional requirement “Include with the NOI, a copy of the most current federal listing of endangered and threatened species found at USF&W web site” has been added to the NOI instructions and NOI form.
29. Appendix 4, page 4, item 7.b, the words “Massachusetts only” were deleted to be consistent with the NOI form.
30. Appendix 4, Page 6, Section II, “Appendix V, Attachment B” has been corrected to Appendix 7.
31. Appendix 4, Pages 5 and 7, and Appendix 6, page 1, electronic mailbox and fax number updated to [NCCWGP@EPA.GOVRegion01](mailto:NCCWGP@EPA.GOVRegion01) and 617/918-2188.
32. Appendix 4, Page 4, item 9 and Appendix 5, Page 5, item 9, the words “dechlorination chemicals” were added to the certification statement.
33. Appendix 5, Page 1, 1.a, the words “if not location address” have been added.
34. Appendix 5, Page 2, 2.a, “Maritime Water” has been changed to “Marine Waters” to be consistent with the NOI instructions.
35. Appendix 5, Page 2, 2.c, the words “For Massachusetts Facilities Only” have been added to be consistent with the NOI Instructions.
36. Appendix 5, Page 2, 2.i, the word “periodic” has been changed to “seasonal” to be consistent with the NOI instructions.
37. Appendix 5, Page 2, 2.j., the abbreviation “pt” has been changed to “outfall”.
38. Appendix 5, Page 3, 3.a. the words “surface water” at the end of line 2 have been deleted and the words “NHDES Water User Registration Rule (ENV Wq 2202)” have been added to the third bullet to be consistent with the NOI instructions.
39. Appendix 5, Page 3, 3.c, has been rewritten to read “If yes, see Appendix 8 and submit effluent and surface water test results, as required in Part 5.4. of the General Permit” to be consistent with the NOI instructions.
40. Appendix 5, Page 3, item 4, the reference to the Questions 10-20 of the Fact Sheet has been corrected to Questions 13-23 and the EPA web site link to the Fact Sheet posting has been added to the NOI.

41. Appendix 4, Page 4 and Appendix 5, Page 3, item 4, the additional requirement that “a characterization of the source water body’s aquatic life habitat in the vicinity of each CWIS during the seasons when CWIS may be in use” be included in the CWIS description has been added to be consistent with the NOI instructions.

42. Appendix 5, Pages 4-5, items 6.b, 7 and 8 were renumbered as items 7, 8, and 9 to be consistent with the NOI instructions.

43. Appendix 5, Page 5, the federal regulatory requirements ”signed applications” was added to the NOI form to be consistent with the NOI instructions.

44. Certain punctuation corrections, clarifying phrases, cross-references, web address updates, and the use of consistent terminology have been added to the final General Permit without causing substantive change to the permit.

### **List of Attachments**

A. List of facilities that may apply for coverage (Response to Comment 16)

### **Comments:**

#### **1. Comment from GE**

GE requests to increase the facility’s discharge limit for temperature from 83 degrees F to 87 degrees F. The NCCW supply for the GE Somersworth facility is withdrawn from a canal that is 1700 feet long by 32 feet wide that was built in 1823. The water level in the canal, during periods of low flow, is about 5 feet. GE must maintain a minimum flow of 10 cfm in the Salmon Falls River before water can be diverted into the canal (FERC permit 3820 – NH). As such, on hot sunny days (July and August) the temperature for the water in the canal easily approaches 80 degrees F and the measured temperature from Discharge 005 has approached 83 degrees F in the past. A discharge temperature upper limit of 83 degrees F is considered too restrictive due to natural heating and ambient water temperature fluctuations of the influent NCCW supply.

#### **Response to Comment 1:**

A general permit is appropriate for point sources that, among other things, discharge the same types of wastes and require the same effluent limitations and monitoring (see 40 CFR Section 122.28(a)(2)(ii)). It would not be appropriate to set the individual limits that GE suggests within the General Permit. Facilities that do not or cannot meet the conditions of the General Permit should apply for coverage under an individual permit.

Additionally, the temperature limits in this General Permit are based, in part, on the temperature limits in the expired General Permit for non-contact cooling water. EPA is generally prohibited under Section 402(o) of the Clean Water Act from renewing an existing NPDES permit that contains less stringent effluent limits than those established

in the previous permit, unless certain specific exceptions are met. In this case, none of the exceptions (see 40 CFR 122.44(l)) apply.

Therefore, EPA is retaining this temperature limit of 83 °F in the final General Permit which is based on the NH Surface Water Quality Standard for warm water fisheries. Additionally, EPA has reviewed GE's discharge temperatures as reported under the expired General Permit. It appears that GE has consistently discharged under 83 °F over the past several years. If GE believes it can not comply with the conditions of the final General Permit in the future, it must obtain coverage under an individual permit (see 40 CFR Section 122.28(b)(3)(iii)).

## **2. Comment from GE**

GE requests that EPA change the pH limitation range from 6.5 – 8.0 SU to 6.0 – 9.0 SU. GE operating activities do not alter the pH of the discharge, however, the background pH level in the Salmon Falls River periodically exceeds the lower limit. A limit of 6.5 – 8.0 SU is considered too restrictive due to background pH fluctuations.

### **Response to Comment 2:**

The General Permit, as currently written, addresses the circumstances where a facility's discharge effluent may exceed the pH limitation of the permit (6.5 to 8.0 s.u.) and the exceedence is attributable to the low pH of the source water.

Part 2.3.1 of the General Permit (NH State Permit Conditions) requires that a facility's discharge fall within a range of 6.5 to 8.0 s.u., unless the upstream ambient pH in the receiving water is outside of this range and is not altered by the facility's discharge or activities. If the permittee's discharge is lower than 6.5 s.u., the permittee may demonstrate compliance by showing that the discharge pH was either higher than, or no more than 0.5 s.u. lower than, the ambient upstream receiving water pH. The process for making a demonstration by which a change to the pH limits may be obtained is found in Part 2.3.1.

EPA is retaining the pH limits in the final General Permit. As discussed in RTC 1, if a facility believes it cannot comply with or successfully demonstrate compliance with the pH limits of the final General Permit, it must request coverage under an individual permit (see 40 CFR Section 122.28(b)(3)(iii)).

## **3. Comment from Tyco**

Tyco has a unique set of circumstances involving its NCCW. The original piping is still in existence and at some unknown point of the 600–700 ft underground piping run from the facility to the outfall, the NCCW joins the Town of Wrentham storm water drain lines, which then lead to the outfall. This long run of pipe provides a natural cooling and dilution mechanism for the NCCW. Tyco has always and is currently attaining the effluent discharge limits of the current NCCW General Permit.

Due to this unique set-up, there is no ‘upstream’ point, and therefore, it is impossible to sample ‘background’ readings. Samples are taken after the flow from the facility and the storm water from the town commingle, and before the flow enters the pond.

Tyco opposes the change in frequency of sampling from monthly to weekly. Past data shows that the non-contact cooling water has been in compliance and therefore increased monitoring is a meaningless task. Tyco suggests maintaining monthly sampling for temperature and pH, as well as the effluent limits of 83 degrees F for temperature and 6.5-8.3 SU for pH.

The requirement for chlorine may be difficult to attain and since the town storm water contribution is unknown. Tyco suggests maintaining the quarterly sampling for chlorine testing and consider the shared responsibility with the flow from combining with the town storm water.

### **Response to Comment 3:**

The background monitoring requirements in the General Permit are required to ensure that the discharge meets Massachusetts water-quality standards for allowable temperature change. Part 1.2.4 outlines the permittee’s requirements for demonstrating compliance with this requirement. It is unclear from Tyco’s comments why Tyco will not be able to comply with this requirement. Tyco notes that the sampling point is after its discharge pipe intersects with the Town of Wrentham’s stormwater system. Part I.1.2.1 requires that monitoring be conducted prior to commingling of the NCCW effluent with other waste streams. Therefore, Tyco should monitor its discharge during dry weather.

In any event, as discussed in Response 1, above, a general permit is appropriate for point sources that, among other things, discharge the same types of wastes and require the same effluent limitations and monitoring (see 40 CFR Section 122.28(a)(2)(ii)). It would not be appropriate to set the individual limits or conditions that Tyco suggests within the General Permit. Facilities that do not or can not meet the conditions of the General Permit must apply for coverage under an individual permit (see 40 CFR Section 122.28(b)(3)).

Tyco maintains that data collected over many years indicates compliance with previous general permit conditions and that the increased monitoring in the draft General Permit from the existing permit (from monthly to weekly for many parameters) is excessive, burdensome, and meaningless because more data will not change its compliance status. Assuming this is true in Tyco’s case does not necessarily mean this holds true for all sources covered by this General Permit. Establishing individual, pollutant specific permit conditions for different facilities is contrary to the purpose of the general permit, as explained above. Tyco points out in its comments that there are occasional weeks when there is no discharge of non-contact cooling water. In that case, Tyco need not monitor, and if Tyco has no discharge for the entire month, Tyco should report “no discharge” in its monthly report (consistent with its Discharge Monitoring Report (DMR) reporting

instructions). As stated above, Tyco can request exclusion from coverage under this General Permit by applying for an individual permit (see 40 CFR Section 122.28(b)(3)).

The chlorine limits are also based on the Massachusetts water-quality standards. As specified in footnote 11 in Part 1.1 and further explained in Part 1.2.5 of the General Permit, monitoring and compliance for this requirement are only applicable for facilities that use potable water for cooling. Though not directly stated, Tyco's comment implies that it is concerned about possible elevated chlorine levels due to commingling of its discharge with a discharge that originates from another source, in this case, from the Town of Wrentham, rather than chlorine concentration due to the use of potable water for cooling. In that case, Tyco would not be responsible for compliance with the General Permit's chlorine limits.

If it is the case that Tyco does use potable water for cooling, they must comply with the water-quality based chlorine limits, as defined in the General Permit. As previously stated, if Tyco does not believe it can comply with the conditions of the final General Permit, it should request coverage under an individual permit (see 40 CFR Section 122.28(b)(3)(iii)).

#### **4. Comment from Jeffrey Andrews (NHDES)**

On page 2 of the draft Permit, the freshwater chlorine limits equal to the criteria are missing from the limits/monitoring table.

On page 13 in Part 2.3 of the draft Permit, item 4, second line, the phrase "individual discharge" should read "individual discharger."

On page 4 of the NOI instructions, item 9, in item 2 of the bold certification statement the phrase "pH adjustment chemicals" should be revised to read "pH adjustment and dechlorination chemicals."

On page 6 of the NOI instructions, item II (NOT), the phrase "(See Appendix 5, Attachment B)" should read "(See Appendix 6)."

On page 2 of the NOI Form, in 2.k. the siting tool link should be revised to read "...siting\_tool." The underscore is missing.

On page 4 of the NOI Form, item 6.b, (Historic Properties) should be renumbered as item 7 to be consistent with the NOI instructions. If this change is made then items 7 and 8 should be renumbered 8 and 9.

On page 5 of the NOI Form, in the italicized certification item 2, the phrase "pH adjustment chemicals" should be revised to read "pH adjustment and dechlorination chemicals."

#### **Response to Comment 4:**

The typographical errors have been corrected, as suggested in the above comments, in the General Permit, NOI Instructions, and NOI Form.

EPA had previously identified the typographical error identified as page 2 of the NH permit (page 10 of the General Permit, Part 2.1, Discharge Limits and Monitoring Requirements for facilities located in New Hampshire). The entry for discharge limits and monitoring requirements for Total Residual Chlorine discharges to fresh water was missing from the table in the draft General Permit. A corrected version of Page 10 was posted on EPA's website on July 20, 2007 and the table has been corrected in the General Permit.

#### **5. Comment from Jeffrey Andrews (NHDES)**

On page 15 in Part 3.3 of the draft Permit, item 10, the internet link to the fact sheet does not work.

On page 3 of the NOI instructions, item 4, second paragraph, second sentence, the link to the Fact Sheet does not work.

#### **Response to Comment 5:**

All links have been checked and updated as necessary in the General Permit, the NOI instructions and the NOI Form in response to this comment.

#### **6. Comment from Jeffrey Andrews (NHDES)**

On page 2 of the NOI Form, in 2.c, this item should say that this is needed only for MA since the temperature calculations are not needed for NH.

#### **Response to Comment 6:**

EPA agrees with the comment and therefore, item 2.c on page 2 of the NOI form has been changed to read "For Massachusetts facilities only"....

#### **7. Comment from Jeffrey Andrews (NHDES)**

On page 2 of the NOI Form, in 2.h, the last sentence should be deleted since the chlorine limit will not be calculated for NH.

#### **Response to Comment 7:**

EPA agrees that chlorine limits will not be calculated in New Hampshire. Therefore, EPA has changed 2.h in both the NOI instructions and NOI form to now read "If yes, EPA will calculate the Total Residual Chlorine limit for facilities in Massachusetts."

**8. Comment from Jeffrey Andrews (NHDES)**

On page 3 of the NOI Form, item 4, in the 4<sup>th</sup> to last line, how will an applicant calculate mean annual flow if there is no gage? Can EPA provide a typical ratio of mean annual flow to 7Q10 for applicants to use?

**Response to Comment 8:**

EPA is unaware of a “typical ratio” of mean annual flow to 7Q10 and therefore is unable to provide such a ratio. In response to this comment, EPA has modified the NOI Form at page 4, item 4, to ask for the mean annual flow as available from USGS or other appropriate sources.

**9. Comment from CRWC**

CRWC requests that information be made publicly available such as which facilities are covered under the permit, the receiving waters, the discharge flow rates compared to the receiving water’s 7Q10, the compliance records, and when a discharge into an Outstanding Resource Water (ORW) or Area of Critical and Environmental Concern (ACEC) is being considered for coverage. CRWC also requests the interested parties be allowed to provide input on the draft permit.

**Response to Comment 9:**

CRWC recommends that EPA make publicly available information that identifies which facilities are covered under the General Permit and data that is specific to both the receiving waters and the permitted discharges. Further, CRWC requests that interested parties be allowed to provide input on the draft permit.

EPA agrees that public access to information and public participation is an essential aspect of the NPDES permitting process. Thus, EPA anticipates posting on the EPA Region 1 Web Site each NOI received by EPA under this General Permit, as well as a listing of all NOIs received, in a manner similar to the format used for EPA’s Remediation General Permit. Links to this information will be available at <http://www.epa.gov/region1/npdes/nccwgp.html>. The information required to be contained in the NOI is detailed in Appendix 4 of the General Permit and includes the information that CRWC recommended be made available to the public. EPA anticipates that it will publicly post all NOIs received for a minimum of 30 days prior to authorizing discharges under the General Permit.

Interested parties have had the opportunity to provide input on the draft General Permit during the public comment period ending August 6, 2007. No formal public comment period is planned for submitted NOIs, however, as with the Remediation General Permit, EPA staff contacts will be provided on the web site to answer questions and provide information about the General Permit and any posted NOI.

Facility-specific compliance information and monitoring results can be found at EPA's Enforcement and Compliance History On-line tracking system (ECHO) at <http://63.160.3.204/echo/>. This publicly accessible system provides facility specific information about inspections, enforcement actions, compliance status and discharge monitoring results for all permitted facilities.

#### **10. Comment from CRWC**

CRWC recommends that cold water fisheries be added to ACECs and ORWs as water bodies that would need special permission and public review to be covered under the permit.

#### **Response to Comment 10:**

The General Permit has been developed to meet state water quality standards, which include special consideration for cold water fisheries. Part 1.1.1 of the General Permit requires that the discharge temperature into a cold water fishery, in Massachusetts, shall not be greater than a maximum daily temperature of 68°F for class A and B waters, and that the discharge shall not cause the receiving water body temperature to vary by more than 1.5°F from the background temperature for class A waters or more than 3°F from background in class B waters. Part 2.1.1 of the General Permit requires that the discharge temperature into a cold water fishery in New Hampshire shall not be greater than a maximum daily temperature of 68°F.

Furthermore, each NOI submittal, which shall include the designation of the receiving water, shall be reviewed by the EPA prior to approval. For Massachusetts facilities, EPA and MassDEP intend, as part of the NOI review process, to verify the designation of the receiving water. For New Hampshire facilities this verification will be done by EPA in consultation with NH DES.

#### **11. Comment from CRWC**

The flow limit in this permit (1 MGD) does not seem to be related to the flow rate of the receiving water. Given that several of the receiving waters with facilities covered under this general permit are small streams, we recommend that special consideration be given to the dilution factor of the stream.

#### **Response to Comment 11:**

EPA agrees that the flow limit in the General Permit (not to exceed 1.0 MGD) is independent of the flow rate of the receiving water. However, the 7Q10 of the receiving water is taken into account when deriving water-quality based limits. Therefore, consideration is given to the dilution factor and the low flow of the receiving water when determining whether coverage should be granted.

## 12. Comment from CRWC

CRWC recommends that the MA part of the permit match the NH permit in terms of number of times per week temperature monitoring take place for cold water fisheries (3 times per week vs. once per week). CRWC also recommends that the temperature change from the thermal discharge be monitored more frequently than quarterly, especially in the summer during low flow conditions, and that temperature samples are taken during “worst case conditions.” Please consider weekly temperature change monitoring, particularly for streams for which the state has so little data.

### Response to Comment 12:

EPA has developed, and uses, statistical measures to evaluate effluent data. The use of statistical measures allows EPA to better characterize the effects of effluent variability and to reduce uncertainty in the process, thereby allowing EPA to determine the need for a specific permit limit, or to determine a permittee’s compliance with an already established limit.

The commenter recommends changing the monitoring frequency from once per week to three times per week. EPA has evaluated the increased sampling frequency impact by using the aforementioned statistical measures . The results are as follows:

The statistical equation that represents the relationship between confidence level (uncertainty), the percentile represented by the highest concentration in the data, and the number of samples is given below:

$$P_n = (1 - \text{confidence level})^{1/n}$$

Where  $P_n$  is the percentile represented by the highest concentration in the data, and  $n$  is the number of samples<sup>1</sup>. Since we are limiting the maximum daily temperature in this permit,  $P_n$  equals 0.99 (i.e., the 99<sup>th</sup> percentile). Increasing the number of samples from once per week to three times per week will result in 780 samples versus 260 samples, collected over a five year permit period. Using the above equation, increasing the sampling number,  $n$ , from 260 to 780 will increase the confidence level from approximately 92.67 % to 99.96 %. Since effluent temperature monitoring is a relatively simple and inexpensive test, EPA believes this increase is warranted for the term of this permit. Therefore, the temperature monitoring frequency has been increased from once per week to 3 times per week in Massachusetts cold water fisheries. See General Permit Part 1.1.1.

EPA has conducted a similar analysis with regard to increasing the water body monitoring from quarterly to weekly. The results of this analysis show that by increasing the sample number from 20 (quarterly) to 260 (weekly) over the five year permit period, it increases the confidence level from about 18% to almost 93%. While increased in-

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<sup>1</sup> See “Technical Support Document for Water-Quality Based Toxic Control”, EPA-505/2-90-001, March 1991, pg. 56

stream monitoring may be more burdensome for some facilities, EPA believes it is warranted, given the high increase in confidence level. Therefore, in-stream monitoring for temperature change in the Massachusetts General Permit Part 1.1.1 has been increased from 1 per quarter to 1 per week. See Response to Comment 14, below, for an explanation of the exception of in-stream monitoring based on a dilution calculation.

### **13. Comment from CRWC**

This permit will allow some facilities in NH with discharge volumes greater than 1 MGD to be covered on a case-by-case basis. The receiving water's 7Q10 should be considered in that case-by-case.

#### **Response to Comment 13:**

The permit provision that potentially allowed for coverage of NH facilities discharging greater than 1.0 MGD of cooling water on a case-by-case basis has been removed from the final General Permit. See Response to Comment 17. Thus, the upper flow limit in the final General Permit is the same for both Massachusetts and New Hampshire facilities. That being said, EPA will review all NOIs. In reviewing the NOIs for discharges to streams with relatively low 7Q10's, EPA anticipates focusing particular attention not only on the receiving water flow, but also considering other characteristics. After review, if EPA determines that the discharger is not qualified for coverage under this General Permit, the NOI will be denied and the discharger will be required to apply for an individual permit.

### **14. Comment from CRWC**

The draft permit will eliminate the need for discharges with a dilution factor of 50 or greater to measure in-stream temperatures. This may be reasonable in most cases, but for a river with multiple thermal discharges and dams, the in-stream water temperature might already be problematic and the large dilution factor may still not be enough to mitigate the heated discharges.

#### **Response to Comment 14:**

The fact sheet did state that a modification to the in-stream monitoring requirement for Massachusetts facilities with dilution of 50 or greater was allowed (see page 4 of the Fact Sheet, "How is the proposed General Permit different from the expired NCCW General Permit?"). However, this was not a condition found in the draft General Permit, and no such condition is included in the final General Permit. EPA regrets any confusion this may have caused.

The draft General Permit does allow calculations in lieu of monitoring to demonstrate compliance with the in-stream temperature requirements in Massachusetts (see Part 1.2.4 of the General Permit). EPA believes this is a valid approach and has retained it in the final General Permit.

## **15. Comment from CLF – Applicability of a general permit**

CLF concurs that at this time a general permit may be appropriate for certain NCCW dischargers whose discharges are similar in composition and require similar controls. CLF also notes that EPA has excluded from coverage under the NCCW General Permit facilities that present a number of other unique or special circumstances and lists several examples.

### **Response to Comment 15:**

EPA acknowledges CLF's concurrence that "at this time a general permit may be appropriate for certain NCCW discharges," and agrees that general permit coverage should be applicable only to similar, small dischargers. In light of this, there are important bounds on coverage under this General Permit. For example, CLF has correctly noted that there are a number of significant exclusions to coverage under the draft General Permit. These exclusions include discharges to Outstanding Resource Waters; discharges to Massachusetts Class A public water supplies, unless a variance is granted by the MassDEP; discharges to a river designated as a Wild and Scenic River; and discharges of pollutants to "non-attainment" receiving waters unless the discharge is at or below a concentration that meets water quality standards for the listed pollutant. These have been retained in the final General Permit.

Further, EPA notes that in addition to excluded discharges, there are a number of additional situations where EPA may require an individual permit rather than consider or authorize coverage under the General Permit. See Parts 3.3.15 and 5.10.

EPA has determined that this General Permit meets the general permit criteria for issuing a general permit found in 40 CFR §122.28(a)(2)(ii). These criteria are summarized below.

#### **a) Involve the same or substantially similar types of operations**

All of the facilities eligible for the General Permit have operations requiring cooling to reduce heat, and all facilities utilize and discharge a limited volume of water for this cooling in a manner such that the cooling water does not come into direct contact with any raw material, intermediate product, waste product (other than heat), or finished product. (See Response 17 for further information.). Based on EPA's experience with the current NCCW general permit, EPA anticipates the majority of facilities covered use non-contact cooling water in one or more manufacturing operation.

#### **b) Discharge the same types of wastes**

All dischargers covered by the final General Permit discharge non-contact cooling water which is not co-mingled with other process water before either monitoring or discharge. If monitored prior to co-mingling with other process water, all other

process water discharges must be covered by another NPDES permit. (This has been clarified in the cover pages to Parts 1 and 2 of the final General Permit.) Therefore, as in the current NCCW general permit, the discharges covered by the final General Permit will be of the same type of waste. The most notable pollutant in this discharge is heat. Other pollutants, such as chlorine or metals, may be of concern when they are characteristics of the water that is used for cooling, such as potable water or ground water. The final General Permit has provisions for these potential situations.

c) Require the same effluent limitations or operating conditions

All discharges covered by the permit are subject to effluent limitations for flow, temperature and pH. Temperature effluent limits are prescribed based on the flow of the receiving water body, where different dilution factors are applied, and additional water quality-based limitations are prescribed in certain defined circumstances when potable or ground water is used for cooling.

Other operating conditions include the requirement that permittees that withdraw surface water as the source of cooling water satisfy the Best Technology Available (BTA) standard applicable to cooling water intake structures (CWISs) under CWA § 316(b). As in the current General Permit, BTA is required in all such cases. In the final General Permit, however, to satisfy the BTA, each facility must meet certain uniform requirements stated in Part 4.3.a of the final General Permit. The facility also must specify in its NOI how it will satisfy these BTA requirements. In all cases, the same uniform BTA requirements described in Part 4.3.a apply to the CWIS, and the capacity of the CWIS is limited. The BTA requirements address aspects of the design, construction, location and/or capacity of the CWIS to minimize adverse impacts. Low volume cooling water withdrawal limits (no greater than 1.0 MGD) and low intake velocities (no more than 0.5 feet per second) are operating conditions that apply to all facilities using surface water and seeking coverage under the General Permit.

d) Require the same or similar monitoring

Uniform monitoring requirements are contained in Part 1.1 for Massachusetts facilities and in Part 2.1 for New Hampshire facilities. The monitoring frequencies and sample types for all effluent characteristics are identical. For a facility using surface water as its cooling water source, there is an impingement monitoring requirement for all facilities. This monitoring requirement is similar, but not the same for all facilities due to the site-specific variations in the construction of water intake structures.

e) In the opinion of the Director, discharges are more appropriately controlled under a general permit than under individual permits

Given the similar nature of these facilities and their discharges and CWISs, as well as the efficiencies of regulating similar facilities under uniform conditions, EPA has determined that these small non-contact cooling water discharges and CWISs are more appropriately handled under a general permit than under individual permits. In recognition of variations in operations and locations of various facilities, EPA delineated in the draft General Permit and Fact Sheet numerous situations where an individual permit is required or may be required by EPA, and these provisions have been retained in the final General Permit.

In conclusion, EPA has determined that, for the class of dischargers meeting the final General Permit eligibility requirements, coverage under a general permit is appropriate. This final General Permit is an update of EPA Region I's current NCCW General Permit that the Region issued in April 25, 2000, which updated the NCCW General Permit issued in 1995. Thus, an EPA-issued NCCW general permit has covered this class of dischargers since 1995. Based on EPA's experience with the facilities covered under the current NCCW general permit, to the extent that there are variations in permitting conditions among those facilities eligible for coverage under the NCCW general permit, this variation is expected most often to stem from variations in the source water and receiving water rather than from variations in the type of operations, the type of discharges, type of CWIS, or effluent limitations.

#### **16. Comment from CLF – Public availability**

CLF requests that all NOIs under this general permit be made permanently available through posting on the EPA website, such as EPA has done in posting NOIs received for the Remediation General Permit (RGP). CLF also recommends that EPA make all monitoring and DMR data submitted by facilities to EPA and state agencies, as described on page 21 of the Fact Sheet, available to the public at the same website. CLF further requests that EPA make publicly available either a list of facilities EPA believes are subject to the general permit or all NOIs submitted under the prior general permit, along with any correspondence from EPA to facilities notifying them, pursuant to 40 C.F.R. §122.28(b)(2)(vi), that EPA believes they must apply for coverage under the general permit.

#### **Response to Comment 16:**

CLF recommends that EPA make publicly available lists of NOIs and other information as EPA has done with the NPDES Remediation General Permit. EPA anticipates posting on the EPA Region I Web Site each NOI received by EPA for a minimum of 30 days prior to authorization, as well as a permanent list of all NOIs received during the effective period of the permit, in a manner similar to the format used for EPA's Remediation General Permit. Links to this information will be available at <http://www.epa.gov/region1/npdes/nccwgp.html>. EPA anticipates the NOIs received will be publicly posted for a minimum of 30 days prior to authorization.

As requested by CLF, EPA is providing a list of those facilities it believes may be eligible for coverage under this general permit either because they were covered under the previous NCCW general permit or they use small quantities of NCCW and have come to EPA's attention since this issuance of the previous NCCW general permit. This list is included as Attachment A to the Response to Comments. (For completeness, this list has not been screened to remove those facilities that are likely to be ineligible for coverage because discharge exceeds 1.0 MGD, their surface water intake exceeds 1.0 MGD, or both.)

Further, as described in RTC 9, facility-specific compliance and enforcement information, as well as discharge monitoring results can be found at EPA's Enforcement and Compliance History On-line tracking system (ECHO) at <http://63.160.3.204/echo/>.

#### **17. Comment from CLF: Inclusion of Technology Standards**

CLF recommends that EPA issue this draft general permit in a manner that includes a list of minimum BTA components to which each facility must conform. CLF opposes the draft general permit to the extent that it does not clearly identify the applicable conditions for each facility in a manner that is subject to public comments. CLF is concerned that the draft permit denies the public an opportunity to comment on the conditions that will be applicable to each facility. CLF is concerned that EPA has not determined the number of technologies, or suites of technologies, prior to issuing the draft general permit, and consequently has not provided adequate notice to the public of what will be required in these facilities. If the activities included under the general permit are similar enough to qualify for general permit coverage (as opposed to requiring an individual permit), EPA should include specific technology standards and monitoring protocols applicable to all facilities (or categories of facilities) covered under the general permit. As stated in 40 C.F.R. §122.28, a general permit "must clearly identify the applicable conditions for each category or subcategory of dischargers...covered by the permit."

#### **Response to Comment 17:**

In accordance with 40 C.F.R. §122.28, the NCCW general permit identifies applicable conditions for each category and subcategory of dischargers covered by the permit. In the case of the final General Permit, these categories and subcategories include 1) the location of the receiving waters in Massachusetts or New Hampshire, to ensure that each category must attain the applicable Surface Water Quality Standard for the respective state; 2) whether the receiving waters are cold water fisheries or warm water fisheries, again to ensure that applicable Surface Water Quality Standards are attained; and 3) the type of source water, to set applicable conditions for surface water, ground water and potable water.

The draft General Permit sets forth permit requirements to regulate CWISs for those facilities that utilize surface water for cooling. For all facilities, low CWIS capacity, as reflected by the 1.0 MGD maximum discharge flow requirement, was a clearly stated condition in the draft General Permit. This is retained in the final General Permit, and, in

addition, the final General Permit has clarified a requirement that the surface water intake flow also not exceed 1.0 MGD. This has been added to Part 3.1 of the final General Permit: “This General Permit will cover discharges of NCCW in Massachusetts and New Hampshire of 1.0 million gallons a day (MGD) or less per permitted facility and cooling water intake structure (CWIS) surface water withdrawals of 1.0 MGD or less per permitted facility.”

Further, in the draft General Permit, the 1.0 MGD maximum discharge requirement was applicable for all facilities in Massachusetts and all facilities in New Hampshire, with possible exceptions in the latter state based on EPA and State approval. In consideration of this comment, the provision allowing exceptions to the 1.0 MGD threshold in New Hampshire has been removed from the final General Permit.

These additional uniform requirements more clearly identify the applicable conditions for each facility. Generally, limiting intake flow capacity is the single most effective measure to minimize the adverse environmental effects of a CWIS (entrainment and impingement).

In addition, Part 4.3.a of the draft General Permit contained three additional BTA conditions which each facility must conform to, and a standard biological monitoring requirement. For example, one of the minimum BTA requirements is to cease or reduce the intake of cooling water whenever the withdrawal of source water is not necessary. This is applicable for each of these similar facilities. Thus, in the General Permit, EPA is not merely providing a list of potential technologies and measures that a facility could use to meet the BTA, but rather identifies the applicable conditions for this subcategory.

In consideration of this comment, the following additional provision has been added to the minimum BTA requirement to more clearly identify the applicable design conditions for each facility:

Maintain a physical screening or exclusion technology with a maximum CWIS through-screen velocity of 0.5 feet per second (fps) or implement alternative steps of comparable effectiveness at minimizing the entrainment and impingement mortality of adult and juvenile fish in the CWIS.

Technologies for reducing impingement mortality are available to all facilities to be covered by the final General Permit. Most commonly, reductions are achieved by designing and operating the CWIS with a physical screening or exclusion technology that precludes the entrainment of adult and juvenile fish (typically with a mesh of 3/8 inch or less) and results in a through-screen intake velocity of 0.5 feet per second (fps) or less. Data compiled from studies of 30 species of fish suggest that a through-media velocity of 0.5 fps or less creates a force weak enough to prevent impingement of 96 percent of tested fish species by allowing them to swim away from the CWIS. *See* 66 Fed. Reg. 65,724. Therefore, EPA determines that maintaining a maximum through-media velocity limit of no more than 0.5 fps will effectively minimize impingement of adult and juvenile fish. In this final General Permit provision, EPA also allows the use of alternative

technologies that will reduce impingement mortality to a comparable level, based on documentation presented by the permittee in the NOI.

The final General Permit also identifies certain specific information to be included in each NOI. This information includes the design intake flow as a percent of the source water annual flow and as a percent of the source water's 7Q10. The information also includes a characterization of the habitat provided for aquatic life by the source water body in the vicinity of the CWIS during the seasons when the CWIS may be in use. Such uniform data requirements will enable EPA to consider the relevant information for each permittee and how the permittee will achieve the BTA requirements of the final General Permit. Certain changes in the CWIS-related information items required in the NOI have been made in Appendix 4 and Appendix 5 of the final General Permit to reflect the changes in the general BTA requirements described above and in Part 4.3.a of the final General Permit.

As an additional clarification of the conditions applicable to all CWISs under the final General Permit, EPA has clarified in Parts 1.2.6 and 2.2.3 that both the discharge and the intake shall not cause a violation of the water quality standards applicable to the affected receiving water and source water.

CLF also raises concerns that the NOI review and discharge authorization process prevents members of the public from commenting on which technologies it believes are most appropriate. Regarding the public availability of conditions, EPA anticipates posting on its web site all NOIs received for a minimum of 30 days prior to authorization. The information required in the NOI is detailed in Appendix 4 of the General Permit. Among the required information that the NOI must include for an applicant to receive authorization is the source of NCCW, the BTA description for any CWIS, and a characterization of the source water body's aquatic life habitat. As indicated in Response 9, no formal public comment period is planned for submitted NOIs, however, EPA staff contacts will be provided on the web site to answer questions and provide information about the General Permit and any posted NOI.

See RTC 18 for EPA's comments on standard biological monitoring protocol concerns raised by CLF.

## **18. Comment from CLF – Monitoring requirements**

CLF recommends that EPA issue this draft general permit in a manner that includes a standard biological monitoring protocol and more prescriptive requirements with respect to monitoring for impacts on fish and invertebrates. CLF urges EPA to revise the draft general permit to include a requirement that each facility regularly and frequently monitor the facility's cooling water intake structures to determine the number and type of fish, larvae, and invertebrates that are impinged or otherwise affected by its intake structures. EPA should specify the frequency of impingement monitoring (for example, once per week at a different time of the day and a different day each week of the month). Permittees should be required to notify EPA and the appropriate state agency if a

significant impingement event occurs. EPA should also include a requirement to sample the eggs and larvae present near the intake on at least a seasonal basis. Even if, as EPA points out, a majority of species covered under EFH spawn in marine or estuarine environments, while the majority of facilities covered under the General Permit discharge to freshwater, the General Permit should better account for potential impacts on the broader environment in freshwater receiving waters, including all native fishes, forage species and micro-organisms essential to a balanced ecosystem.

### **Response to Comment 18:**

EPA has considered CLF's recommendations for a standard biological monitoring protocol, specifying the regular, frequent monitoring for impingement and other effects, sampling for eggs and larvae present near the intake, and that the permittee notify EPA and the appropriate state agency of any unusual impingement.

In light of this comment, EPA has added specificity with the provision that monitoring for impinged fish and impinged invertebrates be conducted at a minimum of three times a week, if practicable. The qualification that the three times per week requirement only applies if it is practicable is included in recognition of differences in the of CWIS designs, degrees of CWIS accessibility, and likelihood of CWIS fish impingement. In some situations EPA recognizes that this requirement could be infeasible at some facilities. If the applicant determines that this frequency or protocol is not practicable, the permittee must provide an explanation of why it is not practicable and an alternate monitoring frequency and protocol. See Part 4.3.a of the final General Permit. Examples of practicability factors that could be considered in this determination and in providing an alternate monitoring frequency and protocol include factors of safety, access to the CWIS, the ability to observe impingement, and/or the availability of alternative means of monitoring impingement. Thus, in the final General Permit, the following has been added to the general BTA requirement regarding a monitoring program at Part 4.3.a., fourth bullet, after the first sentence.

“If practicable, this program shall include inspections of all locations where impingement may occur, at a minimum frequency of three times a week at varying times of day, operating conditions, and source water conditions. All inspections must be recorded in writing, and this inspection record shall include the date, time, presence or absence of impinged organisms, and the name of the inspector. If organisms are observed, the permittee must record the following information: the number, species and length of the impinged fish; the condition of the fish (dead or alive); and any actions taken by the facility (e.g. fish returned to river, fish collected, cooling water intake flow reduced, etc.). If the applicant determines that this monitoring program frequency and/or protocol are not practicable, the applicant shall provide in its NOI an explanation of this determination, an alternate frequency and/or protocol, and an explanation of why the alternative frequency and/or protocol are adequate to determine the number of impinged fish and invertebrates on the facility's CWIS.”

Regarding CLF's recommendation for sampling of eggs and larvae, in Part 4.3.b, the final General Permit requires characterization of the biology of the source water body and its habitat. Among other items, this includes the abundance of fish eggs, larvae, juveniles and adults and the density of these life stages. To reinforce this requirement, this characterization has been added to the NOI instructions and NOI Form at Appendices 4 and 5, Section 4. Best Technology Available for CWIS. While sampling is not necessarily required in Part 4.3.b when there are other sources of this information, the Fact Sheet, in item #18, explains that, "In certain cases, an assessment of fish abundance, density and entrainment and impingement potential may require sampling of the resource water for eggs and larvae." This information may be necessary before an NOI submission will be considered complete. EPA believes that since new sampling for eggs and larvae may not be necessary in all cases to adequately characterize the source water biology, the requirements of Part 4.3 are sufficient in this regard and have not been modified further.

EPA has considered CLF's recommendation requiring permittees to notify EPA and the appropriate state agency if a significant impingement event occurs. Such notification is typical in many individual permits regulating larger NCCW dischargers with one or more CWIS. EPA agrees that notification of an unusual impingement event should be required in the final General Permit. Generally, individual permits regulating larger NCCW dischargers with one or more CWIS require notification upon observation of 40 dead fish per 8 hour period (e.g., Mirant Canal Station Permit, Newington Station Permit, and West Springfield Station Permit). Because facilities under the NCCW general permit have substantially lower intake volumes and their intake structures generally have a comparatively smaller surface area, EPA has determined that the impingement of 4 fish observed at a permittee's CWIS would qualify as an unusual impingement event warranting notification for this general permit.

Therefore, EPA has added a fifth general BTA-related requirement in Part 4.3.a of the final General Permit:

"If the permittee observes four (4) or more fish on the CWIS during any one of the following activities or situations, this would qualify as an unusual impingement event, warranting notification as described below: 1) during a regular impingement monitoring program observation event, 2) at any time the CWIS is viewed, or 3) when the cumulative number of individual fish observed on the CWIS totals four (4) or more based on multiple observations over the course of any 24-hour period. The permittee shall report such an unusual impingement event to the Regional Administrator and the Commissioner within 24 hours by telephone. A written confirmation report shall be provided within five business days. These oral and written reports shall include the following information: the date and time of the unusual impingement event; the number, species and length of the impinged fish; the condition of the fish (dead or alive); and any actions taken by the facility (e.g. fish returned to river, fish collected, cooling water intake flow reduced, etc.)."

## **19. Comment from CLF - Conservation of resources**

CLF opposes the draft general permit to the extent that it appears to contradict a key function of general permits, which is to conserve time and resources. EPA review of facility-specific BTA requirements in each NOI, including a facility-specific impingement monitoring protocol, as proposed in the draft general permit, would appear to require a significantly greater amount of time than up-front BTA determination, therefore defeating one of the main purposes of issuing a general permit. Although a list of potential BTA components was made available in Attachment C of the draft NCCW general permits, the list merely provides suggestions that a permittee may choose to include in its facility specific BTA description. By allowing the individual facility to select which components it wishes to implement, and then having the EPA determine whether or not those components will be sufficient to achieve BTA, the process begins to resemble that of an individual permit rather than a general permit.

### **Response to Comment 19:**

EPA believes that the General Permit's approach to these facilities will provide substantial savings in EPA resources compared to issuing individual permits. The process of reviewing NOI requirements will be streamlined by the designation in the final General Permit of uniform BTA requirements and of specific information needed to authorize permittees. In this way, permittees can be authorized under the General Permit when appropriate, or an individual permit can be required when appropriate, without creating the time and burden associated with individual permits in most cases. In response to the specific recommendations in this comment, EPA has modified the impingement monitoring requirement, as CLF has recommended, by adding more standardization and certainty in the impingement monitoring frequency required of each permittee with a CWIS. Specifically, the monitoring requirement in Part 4.3.a requires monitoring for impinged organisms at least three times per week unless this is impracticable, in which case the permittee must include in its NOI an explanation of this finding as well as an alternate monitoring frequency and/or protocol. (See Response to Comment 18.) In addition, EPA has added additional standard BTA conditions to the final General Permit, as described in Response to Comment 17. In the case of establishing a maximum through-screen intake velocity, this requirement has been added to Part 4.3.a.

## **20. Comment from CLF – Essential Fish Habitat (EFH) and Endangered Species**

EPA should pay particular care to ensure that facilities in fact engage in the required consultations with federal and state agencies and conduct monitoring designed to produce accurate information about the impacts of their facilities on endangered species. CLF recommends that all correspondence between permittees and federal and state agencies regarding EFH or endangered species be published on the website for the NCCW general permit. CLF also suggests EPA include on the website the correspondence between itself and other federal agencies referred to in the Fact Sheet regarding potential biological

impacts of this general permit, including the response to recommendations of NOAA-Fisheries as described at page 29-30 of the Fact Sheet.

**Response to Comment 20:**

As described in Sections 25 and 26 of the Fact Sheet, EPA has incorporated procedures and requirements into the General Permit to ensure that the requirements of the Endangered Species Act (ESA) and the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act are fulfilled. EPA anticipates posting on its NPDES permit web site any EFH or ESA correspondence supporting compliance with these requirements that are received in conjunction with an applicant's NOI. In addition, EPA intends to make available any final determination correspondence from the appropriate federal agency regarding EFH or ESA.

**21. Comment from NHDES**

The New Hampshire Coastal Program (NHCP) finds the federal consistency determination regarding reissuance of the NPDES general permit NHG250000 for NCCW Discharges, pursuant to Section 307(c)(1) of the Coastal Zone Management Act (CZMA), 16 U.S.C. § 1456(c)(1), to be incomplete as it does not contain a description of the evaluation of the relevant enforceable policies of the NHCP that was used in determining that the proposed activity is consistent to the maximum extent practicable with NHDES enforceable policies.

CZMA Federal Consistency Regulations, at 15 C.F.R. 930.39(a), require that consistency determinations for federal agency activities include: (1) a brief statement indicating whether the proposed activity will be conducted in a manner consistent to the maximum extent practicable with the enforceable policies of the NHCP, based upon an evaluation of the relevant enforceable policies of the NHCP; (2) a description of the evaluation in the consistency determination, or contained in another document; and (3) a detailed description of the activity, its coastal effects and comprehensive data and information sufficient to support the consistency determination. The CZMA Federal Consistency Regulations can be found at the National Oceanic and Atmospheric Administration's (NOAA's) Office of Ocean and Coastal Resource Management website.

**Response to Comment 21:**

Upon receipt of this comment from the New Hampshire Coastal Program (NHCP), EPA coordinated with the NHCP to complete this federal consistency determination. In a letter dated September 25, 2007, from EPA to NHCP, EPA provided justification that the NCCW GP is consistent to the maximum extent practicable with the NHCP applicable enforceable policies by prohibiting any discharge that causes a violation of the water quality standards of the receiving waters and establishing the following limits: a maximum flow limit, a maximum discharge temperature limit, a pH range limit, and a total residual chlorine limit. In addition, specific requirements are included for the design and operation of CWISs in order to satisfy Best Technology Available (BTA) under Section 316(b) of the Clean Water Act (CWA). The CWIS requirements are designed to

minimize adverse environmental impacts to fish and aquatic organisms by reducing impingement and entrainment. These requirements are formulated to protect the waters of the coastal and estuarine environments. As a result, EPA satisfied the applicable sections of the CZMA Federal Consistency Regulations, and, on October 22, 2007, the NHCP issued a favorable consistency determination regarding reissuance of the NPDES general permit.

## **22. Comment from USFWS**

Part 3.3.9 of the draft permit states that, “Discharges that are likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely impact or destroy critical habitat...” are excluded from coverage under this General Permit. The language in the draft general permit reflecting that coverage excludes projects based on the likelihood of jeopardy is incorrect. The Service determines whether a project may jeopardize the continued existence of a species during formal consultation. We suggest that the basis for excluding coverage under the general permit should be a may adversely affect determination. An individual permit review for such a project should be required.

To reflect a recent addition to our species occurrence information, the list of waters where the federally-listed endangered dwarf wedge mussel is found should be amended to include the Connecticut River from Haverhill to Piermont, New Hampshire.

The northern red-bellied cooter has recently been documented in the Towns of Kingston and Middleborough. Delineation of the area of occurrence by route boundaries is no longer practical.

Current species lists and guidance to determine if suitable habitat occurs in the action area can be found at the New England Field Office’s website at [http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation\\_Project\\_Review.htm](http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation_Project_Review.htm) . We suggest that applicants be required to visit our site and print out a current species list to include with the Notice of Intent. In addition, our website also provides instructions for further informal consultation procedures if the presence of a federally-listed species in the action area cannot be ruled out.

The second to the last paragraph in 25.a of the Fact Sheet should be amended to read “Coverage under the general permit is available only if the applicant determines that there are no species present in the action area or the applicant receives written concurrences that the discharges are not likely to adversely affect...”

## Response to Comment 22:

EPA has made the change identified by USFWS at Part 3.3.9 of the General Permit. The language has been changed from “Discharges that are likely to jeopardize the continued existence of any federally-listed endangered or threatened species...” to “Discharges that may adversely affect any federally-listed endangered or threatened species ...” are excluded from coverage under this General Permit. EPA agrees that this change is appropriate in order to ensure compliance with the Endangered Species Act (ESA). If the conditions at Part 3.3.9 of the General Permit are met, the applicant will be required to submit an individual permit application.

EPA has noted the addition of the dwarf wedge mussel in the Connecticut River from Haverhill to Piermont, New Hampshire and the documentation of the northern red-bellied cooter in the Towns of Kingston and Middleborough, Massachusetts. Endangered species information provided in Appendix 2 as a reference for applying for the General Permit will note these updates.

In accordance with the USFWS comment, EPA has modified the applicant instructions in Part C, Step 1 of Appendix 2 of the final General Permit to direct the applicant to visit the USFWS New England Field Office website at [http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation\\_Project\\_Review.htm](http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation_Project_Review.htm) and to print out a current species list to include with the Notice of Intent. In addition, Appendix 2 has been changed to note that the USFWS website provides additional instructions for further informal consultation procedures if the presence of a federally-listed species in the action area cannot be ruled out.

EPA has revised Appendix 2 to incorporate the federally listed endangered and threatened species for Massachusetts and New Hampshire posted on the USFWS web site as of September 17, 2007.

EPA has noted that the second to the last paragraph in 25.a of the Fact Sheet should have read “Coverage under the general permit is available only if the applicant determines that there are no species present in the action area **or** the applicant receives written concurrences that the discharges are not likely to adversely affect...” (emphasis added) The Fact Sheet is a final document that EPA does not amend; however, EPA has noted this text modification for use in future general permits. Further, Appendix 2, Part B contains the correct text.

ATTACHMENT A – LIST OF FACILITIES THAT MAY APPLY FOR COVERAGE

NPDES ID	Permit Name	Location Address	City	Receiving Water Body
MAG250000	<b>MA FACILITIES CURRENTLY PERMITTED</b>			
MAG250003	FITEL*	50 HALL ROAD	STURBRIDGE	NPR - NO DISCHARGE
MAG250004	UMASS BOSTON	100 MORRISSEY BLVD	BOSTON	DORCHESTER BAY
MAG250005	EVERETT SHOPS – MBTA	80 BROADWAY	EVERETT	MYSTIC RIVER
MAG250006	HAARTZ CORP	87 HAYWARD ROAD	ACTON	STORM DRAIN, CONANT BK, AS
MAG250008	MWRA - HYDE PARK PUMP STATION	761 HYDE PARK AVE	HYDE PARK	NPR - Discharge Terminated
MAG250009	PARKVIEW CONDOMINIUM ASSOC.	200 SWANTON STREET	WINCHESTER	ABERJONA RIVER
MAG250010	OMNIGLOW CORPORATION	96 WINDSOR STREET	WEST SPRINGFIELD	CONNECTICUT RIVER
MAG250011	MAJILITE MANUFACTURING INC	100 WHIPPLE STREET	LOWELL	NPRed - Facility closed
MAG250014	UNITED COUNTY INDUSTRIES	32-34 HOWE AVENUE	MILLBURY	BLACKSTONE RIVER
MAG250016	SUPERIOR PRINTING INK CO., INC	61 BRIGHAM STREET	MARLBORO	SUDBURY RESERVIOR
MAG250017	FALL RIVER TOOL & DIE CO, INC.	994 JEFFERSON ST.	FALL RIVER	SUCKER BROOK
MAG250018	EASTERN POINT CONDOMINIUM TRUST	N. QUINSIGNIMOND RD	SHREWSBURY	LAKE QUINSIGAMOND
MAG250019	MGH INSTITUTE OF HEALTH PROFES	CHARLESTOWN NAVY YARD	CHARLESTOWN	BOSTON HARBOR
MAG250020	HARBORVIEW PLACE	225 WATER STREET	PLYMOUTH	PLYMOUTH HARBOR
MAG250021	AMETEK AEROSPACE & POWER INS.	INSTRUMENTS	WILMINGTON	IPSWICH RIVER
MAG250022	SIMONDS INDUSTRIES	INTERVALE ROAD	FITCHBURG	NASHUA RIVER
MAG250023	ROGER A. REED, INC.	P.O. BOX 508	READING	EATON BROOK Trib. Of Saugus R
MAG250024	HYDE MANUFACTURING CO	54 EASTFORD ROAD	SOUTHBRIDGE	COHASSE BROOK
MAG250025	OAKDALE POWER STATION	RIVER STREET	WEST BOYLSTON	QUINAPOXET RIVER
MAG250026	BAKER COMMODITIES	134 REAR BILLERICA AVE.	NORTH BILLERICA	CONCORD RIVER
MAG250027	DOUBLE-A-PLASTICS CO., INC.	85 BETHANY ROAD	MONSON	CHICOPEE RIVER
MAG250029	STERIS CORP. ISOMEDIX SERVICES	435 WHITNEY STREET	NORTHBOROUGH	WHEELER POND
MAG250030	SINCLAIR MANUFACTURING	12 S. WORCESTER ST.	CHARTLEY	CHARTLEY BROOK
MAG250031	WM E. WRIGHT LMTD PARTNERSHIP	SOUTH STREET	WEST WARREN	CHICOPEE BASIN Termination le
MAG250032	HARODITE INDUSTRIES INC.	66 SOUTH STREET	TAUNTON	THREE MILE RIVER
MAG250033	FORTFIBER CORP.	55 STARKEY AVE.	ATTLEBORO	BUNGAY RIVER
MAG250034	NORFOLK & DEDHAM MUTUAL FIRE	222 AMES STREET	DEDHAM	CHARLES RIVER
MAG250035	US ARMY SOLDIER SYSTEMS CTR.	KANSAS STREET	NATICK	LAKE COCHITUATE
MAG250036	ATLANTIC FROST SEAFOODS, LLC	1 WATER STREET	FALL RIVER	MT. HOPE BAY
MAG250037	STEINERFILM, INC.	987 SIMONDS	WILLIAMSTOWN	HOOSIC RIVER

		ROAD		
MAG250121	CONCRETE BLOCK INSULATING SYS	4 FREIGHTHOUSE ROAD	WEST BROOKFIELD	WETLANDS, COYS BK, QUABOAG
MAG250163	BOOTT HYDROPOWER - E.L. FIELD	145 PAWTUCKET ST	LOWELL	MERRIMACK RIVER
MAG250244	SUN CHEMICAL CORP/GPI DIVISION	320 FORBES BLVD	MANSFIELD	NPR - Discharge Terminated
MAG250279	RIVERDALE MILLS CORP	130 RIVERDALE ST	NORTHBRIDGE	SOUTH BRANCH BLACKSTONE R
MAG250287	FIBER EXTRUSION	Not Listed	FALL RIVER	NPR - FACILITY CLOSED
MAG250333	PHOTOFABRICATION ENGINEERING	500 FORTUNE BLVD.	MILFORD	UNNAMED QUARRY TO CHARLE
MAG250376	Polymer Corp.	96 PALMER ROAD	MONSON	CHICOPEE BROOK
MAG250431	ANDERSON GREENWOOD CROSBY	43 KENDRICK ST	WRENTHAM	UNNAMED TRIBUTARY TO LAKE
MAG250520	COMMUNICATION + POWER IND.INC.	150 SOHIER RD	BEVERLY	STORMDRAIN, UNNAMED TRIB,
MAG250554	HARRISON SPECIALTY CO INC	15 UNIVERSITY RD	CANTON	NEPONSET RIVER
MAG250732	LOWELL NATIONAL HISTORIC PARK	400 FOOT OF JOHN STREET	LOWELL	MERRIMACK RIVER
MAG250741	PRO CORPORATION-PMC	296 NONOTUCK STREET	FLORENCE	MILL RIVER
MAG250759	THE WEETABIX COMPANY INC	20 CAMERON STREET	CLINTON	SOUTH BRANCH NASHUA RIVER
MAG250821	FOX RIVER PAPER COMPANY	RISING PAPER DIVISION	HOUSATONIC	NPR - Discharge Terminated
MAG250830	GOTHAM INK OF NEW ENGLAND, INC	255 EAST MAIN STREET	MARLBORO	MOWRY BROOK TO SU AS CO)
MAG250848	HERCULES, INC	1111 GRATTAN STREET	CHICOPEE	CONNECTICUT RIVER
MAG250856	JEN-COAT, INC.	132 NORTH ELM STREET	WESTFIELD	WESTFIELD RIVER
MAG250872	HAZEN PAPER CO	240 SOUTH WATER STREET	HOLYOKE	CONNECTICUT RIVER
MAG250881	HAMPDEN PAPERS INC.	100 WATER STREET	HOLYOKE	CONNECTICUT RIVER
MAG250911	SAINT-GOBAIN CONTAINERS, LLC	1 NATIONAL STREET	MILFORD	CHARLES RIVER
MAG250945	CENTRAL LABEL & ENGRAVING CO	158 CARTER ST	CHELSEA	BOSTON INNER HARBOR
MAG250946	KIDDE-FENWAL INC	400 MAIN ST	ASHLAND	COLD SPRING BROOK
MAG250947	STORMS FORGE DIVISION	160 COTTAGE STREET	SPRINGFIELD	POOR BROOK TO CHICOPEE
MAG250948	LAWRENCE HYDROELECTRIC ASSOC.	9 SOUTH BROADWAY	LAWRENCE	MERRIMACK RIVER
MAG250949	BOOTT HYDROPOWER - HAMILTON	JACKSON ST	LOWELL	MERRIMACK RIVER
MAG250950	BOOTT HYDROPOWER - JOHN ST STA	JOHN STREET POWER STATION	LOWELL	MERRIMACK RIVER
MAG250954	Four In One Co.	DBA/STICKNEY & POOR CO.	CHELMSFORD	RIVER MEADOW BROOK
MAG250955	CRANE & CO - PIONEER MILL	60 PIONEER STREET	DALTON	EAST BRANCH
MAG250956	CRANE & CO - WESTON MILL	800 MAIN STREET	DALTON	EAST BRANCH
MAG250957	FLO CHEMICAL CORPORATION	27 MAPLE AVENUE	ASHBURNHAM	NPR - FACILITY CLOSED
MAG250958	MANTROSE-HAEUSER COMPANY	113 OLIVE	ATTLEBORO	TEM MILE RIVER

		STREET		
MAG250960	RAYTOR COMPOUNDS, INC.	238 NONOTUCK STREET	FLORENCE	MILL RIVER
MAG250961	HAVERHILL PAPERBOARD CORP	100 SOUTH KIMBALL STREET	HAVERHILL	MERRIMACK RIVER
MAG250962	TRUE PLASTICS, INC.	70 FREEMONT STREET	WORCESTER	MIDDLE RIVER
MAG250965	WAKEFIELD CORPORATION	29 FOUNDRY STREET	WAKEFIELD	TRIB TO WAKEFIELD BROOK TO
MAG250966	FIBERMARK, INC DSI, WEST SPRIN	FRONT STREET	WEST SPRINGFIELD	WESTFIELD RIVER
MAG250968	INTELICOAT TECHNOLOGIES, LLC	28 GAYLORD STREET	SOUTH HADLEY	BUTTERY BROOK, CONNECTICU
MAG250969	LEWCOTT CORPORATION	86 PROVIDENCE ROAD	MILLBURY	BLACKSTONE RIVER
NHG250000	<b>NH FACILITIES CURRENTLY PERMITTED</b>			
NHG250121	CHEMTAN COMPANY, INC.	57 HAMPTON ROAD	EXETER	ASH BROOK
NHG250147	KINGSBURY CORPORATION	80 LAUREL STREET	KEENE	BEAVER BROOK
NHG250317	GENERAL ELECTRIC COMPANY	130 MAIN STREET	SOMERSWORTH	SALMON FALLS RIVER & MAINE
NHG250350	SCOTIA AQUISITION CO.	LRTP, INC.	LACONIA	DURKEE BROOK TO LAKE WINN
NHG250392	ST. Gobain PPO/Chemfab Corp	701 DANIEL WEBSTER HIGHWAY	MERRIMACK	MERRIMACK RIVER
NHG250449	ERROL HYDROELECTRIC LIMITED PA	DAM ROAD	ERROL	ANDROSCOGGIN RIVER
NHG250465	JCI JONES CHEMICALS, INC.	40 RAILROAD AVENUE	MERRIMACK	MERRIMACK RIVER
NHG250503	NORTHERN ELASTOMERICS, INC.	50 PINE ROAD	BRENTWOOD	GROUNDWATER TO BLOOD BRO
NHG250571	VILLAGES OF WINDHAM CONDOMINIU	CONDOMINIUM ASSOC	WINDHAM	SEAVEY POND
	<b>POTENTIAL GP CANDIDATES</b>			
MA0000795	MIT	77 MASS AVE	CAMBRIDGE	CHARLES RIVER
MA0027529	MORTON HOSPITAL	88 WASHINGTON ST	TAUNTON	MILL RIVER
MA0036072	TRANSWORLD SERVICE	72 STONE PLACE	MELROSE	MALDEN RIVER
MA0029050	AMERICAN POLYMERS INC	225 OLD WEBSTER ROAD	OXFORD	FRENCH RIVER
NO MAG25#	NE GAS - CHARLES ST FACILITY	120 CHARLES STREET	FALL RIVER	MT HOPE BAY
NO MAG25#	GREAT POND WATER TREATMENT PLANT	90 POND STREET	BRAINTREE	GREAT POND