AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§ 26-53)

**Draka Cableteq USA**

is authorized to discharge from the facility located at

**761 Joseph E. Warner Boulevard**
**Taunton, MA 02780**

to receiving water named

**Three Mile River (MA62-56)**
**Taunton River Watershed**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective upon signature.

This permit supersedes the permit issued on September 9, 2005.

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit consists of 9 pages in Part I including effluent limitations and monitoring requirements, and 25 pages in Part II including Standard Conditions.

Signed this 19th day of October, 2011

**/S/SIGNATURE ON FILE**

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I
Boston, MA

David Ferris, Director
Massachusetts Wastewater Management Program
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

**PART I**

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge contact and non-contact cooling water from Outfall 001a to the Three Mile River. Such discharge shall be limited and monitored by the permittee as specified below.

| Effluent Characteristic | Units | Discharge Limitation | | Monitoring Requirements [1] | |
|---|---|---|---|---|---|
| | | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Flow | gpd | 1,700 | 2,700 | Continuous [2] | Recorder |
| Biochemical Oxygen Demand [3] ($BOD_5$) | lb/day | *** | 3.47 | 2/month | 24-hr Composite [4] |
| Total Suspended Solids (TSS) [3] | lb/day | *** | 2.53 | 2/month | 24-hr Composite [4] |
| pH range [5, 6] | S.U. | 6.5 - 8.3 | | 2/month | Grab |
| Oil & Grease [7] | mg/L | 15 | 15 | 2/month | Grab |
| Temperature | °C | *** | 28.3 | 2/month | Grab |
| Total Residual Chlorine | mg/l | *** | Report | 2/month | Grab |

*See footnotes on page 4

**Part I.A continued**

2. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge contact cooling water from Outfall 001b to the Three Mile River. Such discharge shall be limited and monitored by the permittee as specified below.

| **Effluent Characteristic** | **Units** | **Discharge Limitation** | | **Monitoring Requirements** [1] | |
|---|---|---|---|---|---|
| | | **Average Monthly** | **Maximum Daily** | **Measurement Frequency** | **Sample Type** |
| Flow | gpd | *** | 18,000 | 1/year | Recorder |
| Biochemical Oxygen Demand [3] ($BOD_5$) | lb/day | *** | 3.9 | 1/year | 24-hr Composite [4] |
| Total Suspended Solids (TSS) [3] | lb/day | *** | 2.9 | 1/year | 24-hr Composite [4] |
| pH range [5, 6] | S.U. | 6.5 - 8.3 | | 1/year | Grab |
| Oil & Grease [7] | mg/L | 15 | 15 | 1/year | Grab |
| Temperature | °C | *** | 28.3 | 1/year | Grab |
| Total Residual Chlorine | mg/l | *** | Report | 1/year | Grab |

*****See footnotes on page 4

**Footnotes for Parts I.A.1 and I.A.2:**

1. Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the discharge through the outfall, prior to mixing with the receiving waters. For Outfall 001a, the continuous contact cooling water discharge, samples shall be taken at the end of the process but prior to mixing with the discharge from the electrical test tank. For Outfall 001b, the electrical test tank discharge, samples shall be taken at the end of the process but prior to mixing with the discharge from the continuous contact cooling water. All samples shall be tested in accordance with the procedures in 40 CFR Part 136, unless specified elsewhere in the permit. Any change in sampling location must be reviewed and approved in writing by the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP). The permittee shall submit the results to EPA of any additional testing, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR § 122.41(l)(4)(ii). All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR 136. Sampling must be representative and done at the same time each day.

2. The flow shall be continuously measured and recorded using a flow meter and totalizer.

3. For BOD and TSS, only mass-based limits apply. The mass-based limits have been calculated by multiplying the average process water usage flow rate by the concentrations listed in 40 CFR 463.13 Subpart A, as required by the effluent guidelines at 40 CFR 463.

4. A 24-hour composite sample shall consist of at least twenty-four (24) grab samples taken during one working day. The number of samples can be reduced proportionally by the number of hours in the calendar day that the facility is discharging. The sampling frequency for the composite sample shall be no less than one grab sample per hour for the number of hours the facility is discharging in one day (e.g. 16-hour working day requires 16 grab samples to make the composite).

5. The pH of the effluent shall not be less than 6.5 standard units (SU), nor greater than 8.3 SU at any time, unless these values are exceeded due to natural causes. The pH shall be no more than 0.5 units outside the natural background range. To demonstrate that pH values of the effluent are outside the permitted pH range due to natural causes, the permittee must show that pH measurements of the source water and the effluent are the same. When the values are exceeded due to natural causes, documentation of such conditions must be submitted by the permittee with the monthly DMR.

6. Required for State Certification.

7. Use EPA Method 1664A as defined at 40 CFR Part 136 for the determination of the conventional pollutant Oil and Grease.

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

3. The discharge shall not cause a violation of the water quality standards of the receiving water.

4. The discharge shall not cause objectionable discoloration to the receiving waters.

5. The discharge shall not contain a visible oil sheen, foam, or floating solids as any time.

6. The effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.

7. The discharges shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.

8. If the permit is modified or reissued, it shall be revised to reflect all currently applicable requirements of the CWA.

9. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR § 122.42):

   a. That any activity has occurred or will occur which would result in the discharge, on a routine basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 µg/l);

      (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrite; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 CFR § 122.44(f).

   b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) Five hundred micrograms per liter (500 µg/l);

      (2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7);

(4) Any other notification level established by the Director in accordance with 40 CFR § 122.44(f).

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

10. Toxics Control

a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

## B. UNAUTHORIZED DISCHARGES

1. The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in Part I.A.1 and Part I.A.2 of this permit. Discharges of wastewater from any other point sources not authorized by this permit or other NPDES permits shall be reported in accordance with Part II Standard Conditions section D.1.e.(1) of this permit (Twenty-four hour reporting).

## C. REOPENER CLAUSES

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. Controls any pollutants not limited in the permit.

## D. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis

that precludes the use of NetDMR for submitting DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

a. Submittal of Reports Using NetDMR

NetDMR is accessed from: http://www.epa.gov/netdmr. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt-out request").

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

b. Submittal of NetDMR Opt-Out Requests

Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

**Attn: NetDMR Coordinator**
**U.S. Environmental Protection Agency, Water Technical Unit**
**5 Post Office Square, Suite 100 (OES04-4)**
**Boston, MA 02109-3912**

and

**Massachusetts Department of Environmental Protection**
**Surface Water Discharge Permit Program**
**627 Main Street, 2nd Floor**
**Worcester, Massachusetts 01608**

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

**U.S. Environmental Protection Agency**
**Water Technical Unit (OES04-SMR)**
**5 Post Office Square - Suite 100**
**Boston, MA 02109-3912**

Duplicate signed copies of all reports or notifications required above shall be submitted to the State at the following address:

**MassDEP – Southeast Region**
**Bureau of Waste Prevention (Industrial)**
**20 Riverside Drive**
**Lakeville, MA 02347**

Any verbal reports, if required in **Parts I** and/or **II** of this permit, shall be made to both EPA-New England and to MassDEP.

## E. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of MassDEP pursuant to the Massachusetts Clean Waters Act, MGL c. 21, §§ 26-53, and 314 CMR 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

2. This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 CFR 124.53, MGL c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.

3. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is

declared invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**NEW ENGLAND - REGION I**
**FIVE POST OFFICE SQUARE, SUITE 100**
**BOSTON, MASSACHUSETTS 02109-3912**

# FACT SHEET

## DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: **MA0028649**

PUBLIC NOTICE START AND END DATES: August 31, 2011 – September 29, 2011

NAME AND MAILING ADDRESS OF APPLICANT:

**Draka Cableteq USA**
**22 Joseph E. Warner Boulevard**
**North Dighton, MA 02764**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Draka Cableteq USA**
**761 Joseph E. Warner Boulevard**
**Taunton, MA 02780**

RECEIVING WATER(S): **Three Mile River (MA62-56)**

RECEIVING WATER CLASSIFICATION(S): **Class B (warm water fishery)**

SIC CODE: **3357 (Drawing and Insulating of Nonferrous Wire)**

## Table of Contents

## 1. Proposed Action

The above applicant has applied to the U.S. Environmental Protection Agency (EPA) for re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge contact and non-contact cooling water into the Three Mile River (the designated receiving water). The existing permit ("2005 permit") was issued and became effective on September 9, 2005, and expired five years from the effective date (September 9, 2010). EPA received a completed permit renewal application from the Facility dated March 9, 2010. Since the permit renewal application was deemed timely and complete by EPA, the permit has been administratively continued pursuant to 40 CRF § 122.6.

## 2. Type of Facility and Discharge Location

The permitee is a manufacturer of electrical cables. The facility extrudes plastic and rubber coatings around the copper wire core of cables. The majority of production is custom cable for a wide variety of applications. In total, the plant has 18 extruders: 13 rubber extruders and 5 plastic extruders. The facility purchases all copper conductors and does not extrude, draw, plate, amend, or significantly treat or alter any metal conductors. Contact cooling water is used to cool the coated wire and to test the cables. Non-contact cooling water is used to cool pumps and heat exchangers. The majority of the water used in the plant is re-circulated.

The facility falls within the Plastics Molding and Forming Point Source Category, and as such, is regulated under the effluent guidelines found at 40 CFR Part 463.

The facility's outfall is located at Latitude 41° 52' 04" Longitude 71° 07' 37", and the discharge location of Outfall 001 into the Three Mile River is shown in Attachment A.

Attachment A includes an aerial view of the facility and Attachment B includes a line drawing of the operation of the Facility.

## 3. Description of Discharge

The facility discharges contact and non-contact process wastewater into the Three Mile River. The facility discharges via a single outfall (001). There are two internal outfalls discharging to Outfall 001; Outfall 001a discharges contact and non-contact cooling water and Outfall 001b discharges only contact cooling water from an annual batch process in the electrical test tank. A summary of the discharge, based on discharge monitoring data from October 31, 2005 through March 31, 2010 for Outfalls 001a and 001b, is presented in Attachment C. These data were collected under the terms of the 2005 permit.

## 4. Receiving Water Description

The facility discharges through Outfall 001 (location indicated on Attachment A) to the Three Mile River (Massachusetts waterbody segment ID MA62-56), which is part of the Taunton River watershed and the Three Mile River subwatershed. The Three Mile River is a 12.8 mile long river that begins at the confluence of Wading and Rumford rivers in Norton and extends to the impoundment spillway behind 66 South Street (Harodite Finishing) in Taunton. The Three Mile River continues (segment MA62-57) until it converges with the Mainstem Taunton River, which

ultimately flows into Mount Hope Bay.[1] In East Taunton the Mainstem Taunton River becomes tidal, with tide waters from Mount Hope Bay reaching more than 18 miles upstream. The lower two miles of the Three Mile River are tidal.

The Three Mile River is classified as Class B warm water[2], by the Massachusetts Department of Environmental Protection (MassDEP) under the Commonwealth of Massachusetts Water Quality Standards[3]. Class B waters are described in the Commonwealth of Massachusetts Water Quality Standards (314 CMR 4.05(3)(b)) as "designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of public water supply with appropriate treatment ("Treated Water Supply"). Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value."

The standard 314 CMR 4.05(3)(b) states that dissolved oxygen and temperature criteria apply in Class B warm water fisheries. Therefore, temperature shall not exceed 83°F (28.3°C), the rise in temperature shall not exceed 5°F (2.8°C), and DO shall not be less than 5.0 mg/l. Where natural background conditions are lower, DO shall not be less than natural background conditions. Natural seasonal and daily variations that are necessary to protect existing and designated uses shall be maintained.

Section 303 (d) of the CWA requires states to identify those water bodies that are not expected to meet water quality standards after the implementation of technology based controls and, as such require the development of total maximum daily loads (TMDL). The Three Mile River is listed on the *Final Massachusetts Year 2008 Integrated List of Waters*[4] as a Category 5 waterbody: "Waters requiring a TMDL". The pollutant requiring a TMDL is pathogens.

MassDEP is required under the CWA to develop a Total Maximum Daily Load (TMDL) for a waterbody once it is identified as impaired. A TMDL is essentially a pollution budget designed to restore the health of a water body. A TMDL first identifies the source(s) of the pollutant from direct and indirect discharges in order to next determine the maximum amount of pollutant (including a margin of safety) that can be discharged to a specific water body while maintaining water quality standards for designated uses. It then outlines a plan to meet the goal.

Based on the nature of the operations at the facility, its discharges are not expected to contribute to the pathogen impairment.

## 5. Limitations and Conditions

The proposed effluent limitations and monitoring requirements may be found in the draft NPDES permit.

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[1] Taunton River Watershed 2001 Water Quality Assessment Report, http://www.mass.gov/dep/water/resources/62wqar3.pdf
[2] http://www.mass.gov/dep/water/laws/tblfig.pdf
[3] http://www.mass.gov/dep/service/regulations/314cmr04.pdf
[4] http://www.mass.gov/dep/water/resources/08list2.pdf

## 6. Permit Basis: Statutory and Regulatory Authority

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations.

The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. The general conditions of the draft permit are based on 40 CFR §122.41 and consist primarily of management requirements common to all permits. The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308(a) of the CWA in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

During development of the draft permit, EPA considered the most recent technology-based treatment requirements, water quality-based requirements, and all limitations and requirements in the 2005 permit. These requirements are further described in the following paragraphs.

### *6.1 Technology-Based Requirements*

Subpart A of 40 CFR §125 establishes criteria and standards for the imposition of technology based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA.

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (See 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. In general, technology-based effluent guidelines for non-publicly-owned treatment works (POTW) facilities must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989 [See 40 CFR §125.3(a)(2)]. Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA can not be authorized by a NPDES permit.

EPA has promulgated technology-based National Effluent Limitation Guidelines (ELGs) for Plastics Molding and Forming Point Source Category, Contact Cooling and Heating Water Subcategory (40 CFR §463, Subpart A). The effluent limitations specified in 40 CFR §463, Subpart A, are calculated based on the "average process water usage flow rate," defined in 40 CFR §463.11(a), as the volume of process water used per year by a process divided by the number of days per year the process operates. The average process water flow rates were provided by the facility and necessary calculations are shown in section 7.1 below.

40 CFR §463.11(a) specifies that the "average process water usage flow rate" for plants with more than one plastics molding and forming process that uses contact cooling and heating water is the sum of the average process water usage flow rates for the contact cooling and heating

processes. Since the facility discharges contact cooling water and also periodically discharges water from two cable test tanks, the average process water usage flow rate for Outfall 001 is calculated as the sum of the average process water usage flow rate for the contact cooling water (Outfall 001a) and the average process water usage flow rate for the cable test tank water (Outfall 001b).

Specifically, the permittee must meet the ELGs calculated by multiplying the average process water usage flow rate for the contact cooling and heating water processes at a point source by the following pollutant concentrations:

| Pollutant or Pollutant Property | Maximum for any 1 day (mg/L) |
|---|---|
| $BOD_5$ | 26 |
| Oil and Grease | 29 |
| TSS | 19 |
| pH | * |

*within the range of 6.0 to 9.0 SU at all times.

### *6.2 Water Quality-Based Requirements*

Water quality-based criteria are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water-quality standards (See Section 301(b) (1)(C) of the CWA). Water quality-based criteria consist of three (3) parts: 1) beneficial designated uses for a water body or a segment of a water body; 2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s) of the water body; and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded.

The Massachusetts State Water Quality Standards, found at 314 CMR 4.00, include these elements. The State Water Quality Regulations limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, be used unless site-specific criteria are established. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts. The Commonwealth of Massachusetts has similar narrative criteria in their water quality regulations that prohibit such discharges [See Massachusetts 314 CMR 4.05(5)(e)]. The effluent limits established in the draft permit assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained.

### *6.3 Anti-Backsliding*

EPA's anti-backsliding provision as identified in Section 402(o) of the Clean Water Act and at 40 CFR §122.44(l) prohibits the relaxation of permit limits, standards, and conditions unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued. Anti-backsliding provisions apply to effluent limits based on technology, water quality, BPJ and State Certification requirements. Relief from

antibacksliding provisions can only be granted under one of the defined exceptions [See 40 CFR §122.44(l)(i)]. In this round of permitting, the concentration-based effluent limits and average monthly effluent limits for both $BOD_5$ and TSS have been removed. In addition, the mass-based maximum daily limits for $BOD_5$ and TSS have been increased from the 2005 permitted levels due to a technical error in the 2005 final permit as described in sections 7.2.4 and 7.2.5 below. All of the permit limits are in accordance with antibacksliding requirements and exceptions.

### *6.4 Anti-Degradation*

The Massachusetts Anti-Degradation Policy is found at Title 314 CMR 4.04. All existing uses of the Three Mile River must be protected. EPA anticipates that MassDEP shall make a determination that there will be no significant adverse impacts to the receiving waters and no loss of existing uses as a result of the discharge authorized by this permit. The State is also asked to certify the anti-degradation provisions in State law are met.

## 7. Explanation of the Permit's Effluent Limitation(s)

### *7.1 Facility Information*

Draka Cableteq USA's Taunton facility is located in Taunton, MA. The facility is located south of Interstate 495 and west of Route 24, bounded to the east side by Joseph E. Warner Blvd, and to the south and west by the Three Mile River. The total area of the facility is approximately ten (10) acres of land.

The facility discharges contact and non-contact process wastewater into the Three Mile River. The facility discharges via a single outfall (001). There are two internal outfalls discharging to Outfall 001; Outfall 001a discharges non-contact cooling water from heat exchangers and contact water from cooling troughs for extrusion processes, and Outfall 001b is an annual batch discharge of no more than 18,000 gallons from the electrical test tank. The water discharging from Outfall 001b is treated with calcium hypochlorite and a hydrodene-wetting agent prior to discharge.

According to their permit application, the facility produces an average of approximately 100,000 feet of cable per day.

As previously noted, Draka Cableteq USA falls within the Plastics Molding and Forming Point Source Category as defined at 40 CFR 463.1 (d). The effluent guidelines for this category apply only to the contact cooling water component of the discharge. Subpart A of the guidelines includes a specialized definition for flow which is used to calculate mass-based limits. The average process water usage flow rate is defined as the volume of water that is used each day on average. It is a combination of the discharge volume and the volume of recycled water used per year divided by the number of days of operations.

**Outfall 001a**

The continuous discharge, Outfall 001a, is composed of discharges from the PLCV salt cure extruder line and from other extruders and troughs. The PLCV salt cure extruder line discharges both contact and non-contact cooling water.

The first line drawing in Attachment B depicts non-contact cooling water flow from this process, which is discharged from the cooling jackets in the extrusion pumps. Approximately 95% of the water used in this line is recycled (28,800 gpd). A daily average of 1,584 gpd of makeup water is supplied from the municipal source. The average discharge of non-contact cooling water from this line is 864 gpd. The balance of water not recycled or discharged is evaporated (720 gpd).

The second line drawing in Attachment B depicts the contact cooling water flow through the PLCV salt cure line. This process water is used to directly cool the wire rubber coatings after they are extruded onto the wire cores. Discharge from this part of the process has been eliminated from the surface water discharge since the facility installed a reverse osmosis (RO) treatment system. Any reject water from the RO system is evaporated.

The third line drawing in Attachment B depicts the contact cooling water flow from other extruders and troughs. Following the extrusion of plastic and/or rubber coating on the wire, the wire is cooled as it is run through a trough of water. As previously discussed, contact cooling water is subject to the effluent limitation guidelines. Approximately 90% of the water used in this line is recycled (14,400 gpd). A daily average of 1,584 gpd of makeup water is supplied from the municipal source. The average discharge of contact cooling water from this line is 864 gpd. The balance of the water is lost to evaporation (720 gpd).

As previously discussed, the effluent guidelines for this subcategory (40 CFR 463.11) define *average process water usage flow rate* as the volume of water that is used each day on average. It is a combination of the discharge volume and the volume of recycled water used per year divided by the number of days of operations. The average process water flow rate for Outfall 001a is 15,984 gpd (see calculations below).

Average Process Water Usage Flow Rate (Contact Water Only):

$$Q_v = Q_r + Q_i = Q_r + Q_e + Q_d$$

where:

$Q_v$ = average process water usage flow rate (APWUFR)
$Q_r$ = flow rate of process water recycled
$Q_i$ = flow rate of intake water
$Q_e$ = flow rate of process water evaporated
$Q_d$ = flow rate of process water discharged

Miscellaneous Extruder and Trough Line:

$Q_r$ = 10 gpm = 14,400 gpd
$Q_i$ = 1.1 gpm = 1584 gpd
$Q_e$ = 0.5 gpm = 720 gpd
$Q_d$ = 0.6 gpm = 864 gpd

$Q_v$ = 14,400 gpd + 1584 gpd = 15,984 gpd
$Q_v$ = 14,400 gpd + 720 gpd + 864 gpd = 15,984 gpd
$Q_v$ = 15,984 gpd = 0.016 mgd

**Outfall 001b**

Outfall 001b is an annual discharge from an electrical test tank with a volume of 18,000 gallons. Finished coated wire is submerged in the tank for testing. The water in the tank is in direct contact with the wire, and therefore, the discharge from the tank is contact process water and subject to the effluent guidelines. The discharge is done to clean the tank and occurs annually during the summer shutdown. The fourth line drawing in Attachment B depicts this process. Since this process is once-through and the discharge is one day per year, the APWUFR for Outfall 001b is 18,000 gpd (0.018 mgd).

### *7.2 Derivation of Effluent Limits under the Federal CWA and/or the Commonwealth of Massachusetts' Water Quality Standards*

The draft permit authorizes the discharge of contact and non-contact cooling water, subject to effluent limitations which are within applicable water quality standards. The effluent parameters in the draft permit are discussed in more detail below. The sections are divided according to the effluent characteristic being regulated. A brief summary of discharge monitoring report (DMR) data from October 31, 2005 through March 31, 2010 is included in Attachment C.

#### *7.2.1 Available Dilution*

Water quality-based effluent limitations are established based on a calculated dilution factor derived from the available dilution in the receiving water at the point of discharge. Massachusetts water quality standards require that the available effluent dilution be calculated based upon the 7Q10 flow of the receiving water (314 CMR 4.03(3)(a)). The 7Q10 flow is the mean low flow over seven consecutive days, occurring every ten years. Use of the 7Q10 flow allows for the calculation of the available dilution under critical flow (worst-case) conditions, which in turn results in the derivation of conservative water quality-based effluent limitations.

The fact sheet from the 2005 permit presented the following calculations for dilution:

> *The long-term average flow from the Outfall 001a is 1,728 gallons per day. The annual discharge from Outfall 001b is 18,000 gallons per day, once per year. The United States Geological Survey Gazetteer lists the 7Q10 of the Three Mile River at North Dighton as 9.4 cubic feet per second or 6.06 million gallons per day. The dilution for the daily discharge is 3564. Once a year during the discharge from the electrical test tank plus the average daily discharge, the dilution factor is 307.*

$$DilutionFactor = \frac{RiverFlow(7Q10)}{DailyAverageDesignFlow}$$

$$Outfall001a = \frac{6.06mgd}{0.0017mgd(contact + non-contact\_water)} = 3564$$

$$Outfall001b = \frac{6.06mgd}{0.0017 + 0.018mgd} = 307$$

As part of re-issuance of this permit, EPA reviewed these dilution calculations.

According to the United States Geological Survey (USGS), the 7Q10 flow at the USGS gauge located on the Three Mile River in North Dighton, MA (USGS Gage No. 01109060) is 9.4 cfs (6.08 mgd) and the drainage area of the gage is 84.3 square miles.[5] This gage is located just downstream of the facility, approximately 800 feet downstream from Warner Boulevard (to the east of the site).

Due to the availability of data and methods of computation, USGS StreamStats[6] shows the drainage area of the river at the outfall is approximately the same (83 square miles) as that of the USGS Gage, which results in the approximate 7Q10 flow of the receiving water at the point of discharge being the same as that at the Gage (9.39 cfs).

Using the maximum daily discharge from Outfall 001a of 2,700 gpd, the annual permitted maximum daily discharge from Outfall 001b of 18,000 gpd, and the 7Q10 of the Three Mile River at North Dighton of 6.08 million gpd, the dilutions are calculated as follows:

Daily Discharge

Dilution factor = (7Q10 of the Three Mile River @ Outfall + Maximum Permitted Daily Discharge Flow from Outfall 001a) ÷ Maximum Permitted Daily Discharge Flow from Outfall 001a

$$\text{Dilution Factor} = \frac{(6.08 \text{ mgd} + 0.0027 \text{ mgd})}{0.0027 \text{ mgd}} = 2{,}253$$

Annual Discharge

Dilution factor = (7Q10 of the Three Mile River @ Outfall + Maximum Permitted Annual Discharge Flow from Outfall 001b) ÷ (Maximum Permitted Annual Discharge Flow from Outfall 001b)

$$\text{Dilution Factor} = \frac{(6.08 \text{ mgd} + 0.018 \text{ mgd})}{(0.018 \text{ mgd})} = 339$$

### *7.2.2 Average Process Water Usage Flow Rate*

The plastics used in the cable making process include polyethylene, Dupont Hytrel polyester elastomer (butylene/poly(alkylene ether) phthalate plus stabilizer) and Dupont Zytel nylon resin (polyhexaminethlene adipamide). The cooling water comes in contact only with the plastic, therefore the process is considered to be plastic molding and forming and the contact cooling water discharge is subject to the effluent limitation guidelines in 40 CFR §463, Subpart A. The effluent limitations specified in 40 CFR §463, Subpart A are calculated based on the "average process water usage flow rate," defined in 40 CFR §463.11(a), as reported by the applicant.

[5] http://wdr.water.usgs.gov/wy2009/pdfs/01109060.2009.pdf
[6] http://water.usgs.gov/osw/streamstats/massachusetts.html

### *7.2.3 Flow*

The 2005 Permit average monthly and daily maximum effluent limits are 1,700 gpd and 2,700 gpd, respectively, from Outfall 001a. The maximum daily effluent limit is 18,000 gpd from Outfall 001b.

As previously stated, Outfall 001b is an annual discharge from an electrical test tank with a volume of 18,000 gallons. The discharge is done to clean the tank and occurs annually during the summer shutdown.

EPA is not proposing any change to this requirement in this round of permitting.

The facility must provide written notification to EPA and MassDEP of any changes in the operations at the facility that may have an effect on the permitted discharge of wastewater from the facility.

### *7.2.4 Biochemical Oxygen Demand ($BOD_5$)*

The $BOD_5$ effluent limitations in the 2005 permit are based on the effluent guidelines found at 40 CFR § 463.12, which require any existing point source subject to Subpart A (Contact Cooling and Heating Water Subcategory) to "achieve the effluent limitations guidelines (*i.e.*, mass of pollutant discharged) representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available." These effluent limitations are calculated by multiplying the APWUFR for the contact cooling and heating water processes at a point source times the maximum daily pollutant concentration for $BOD_5$ of 26 mg/L.

Per 40 CFR § 463.11(a), "the 'average process water usage flow rate' of a contact cooling and heating water process is equal to the volume of process water used per year by a process divided by the number of days per year the process operates. The 'average process water usage flow rate' for a plant with more than one plastics molding and forming process that uses contact cooling and heating water is the sum of the "average process water usage flow rates" for the contact cooling and heating processes."

The concentration-based $BOD_5$ effluent limits have been removed in the draft permit in accordance with 40 CFR 463 V. C. (Federal Register Vol. 49, No. 243), which states that "the effluent limitations, guidelines and standards in this final rule are mass-based." To address not using concentration-based effluent limits, the 40 CFR 463 V. C. also says, that using a mass-based limit as calculated above, "assures that processes with the same average process water usage flow rate, whether water is recycled or used on a once-through basis, have the same mass limitations. If only concentration limitations were employed, EPA believes that facilities that recycle process water may be penalized because their discharges would likely have higher concentrations than the concentrations in discharges from processes that use once-through process water."

In addition, the monthly average $BOD_5$ limits have been removed from this draft permit in accordance with 40 CFR 463 VI. A. 2. (Federal Register Vol. 49, No. 243), which states that monthly limits are not necessary because "there is no effluent variability attributed to the performance of a treatment technology since effluent limitations guidelines and standards are based on raw waste concentrations when good housekeeping techniques are employed rather

than the application of a treatment technology."

#### 7.2.4.1 Outfall 001a

The $BOD_5$ mass-based limits for Outfall 001a are calculated as follows, using the concentration limits defined above per 40 CFR § 463.12 and the APWUFR:

Maximum Daily Mass Limit = APWUFR x Concentration x Conversion Factor = lbs/day

Maximum Daily Mass Limit = 0.016 mgd x 26 mg/L x 8.34(lbs)(L)/(mg)(gal) = **3.47 lbs/day**

This limit is different from the limit in the 2005 permit because EPA discovered an error in the development of the 2005 permit's $BOD_5$ limits (both daily maximum and monthly average). EPA inadvertently changed the limits for outfall 001a from the draft permit to the final permit by multiplying the concentration limit by the permitted flow rate, instead of the APWUFR. This was done in error and EPA now corrects this oversight. An example of the derivation error for the monthly average limit is shown below:

Derivation of 2005 draft permit limits = APWUFR x concentration x conversion factor

= 0.016 MGD x 26 mg/l x 8.34 = 3.47 lb/day (monthly average limit in 2005 draft permit)

Derivation of 2005 final permit limits = permitted flow rate x concentration x conversion factor

= 0.0017 MGD x 26 mg/l x 8.34 = 0.37 lb/day (monthly average limit in 2005 final permit)

Since EPA is now increasing the permitted $BOD_5$ limit by correcting a technical error, this qualifies as an exception to the antibacksliding requirements found in 40 CFR Section 122.44(1).

#### 7.2.4.2 Outfall 001b

The $BOD_5$ mass limits for Outfall 001b are calculated as follows, using the concentration limits defined above per 40 CFR § 463.12 and the average process water usage flow rate (APWUFR):

Maximum Daily Mass Limit = APWUFR x Concentration x Conversion Factor = lbs/day

Maximum Daily Mass Limit = 0.018 mgd x 26 mg/L x 8.34(lbs)(L)/(mg)(gal) = 3.9 lbs/day

The maximum daily mass-based $BOD_5$ effluent limitation for Outfall 001b in the draft permit is the same as the 2005 permit and, therefore, is in accordance with the antibacksliding requirements found in 40 CFR Section 122.44(1).

### *7.2.5 Total Suspended Solids (TSS)*

The TSS effluent limitations in the 2005 permit are based on the effluent guidelines found at 40 CFR § 463.12, which require any existing point source subject to Subpart A (Contact Cooling and Heating Water Subcategory) to "achieve the effluent limitations guidelines (*i.e.*, mass of

pollutant discharged) representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available." These effluent limitations are calculated by multiplying the APWUFR for the contact cooling and heating water processes at a point source times the maximum daily pollutant concentration for TSS of 19 mg/L.

Per 40 CFR § 463.11(a), "the 'average process water usage flow rate' of a contact cooling and heating water process is equal to the volume of process water used per year by a process divided by the number of days per year the process operates. The 'average process water usage flow rate' for a plant with more than one plastics molding and forming process that uses contact cooling and heating water is the sum of the "average process water usage flow rates" for the contact cooling and heating processes."

The concentration-based TSS effluent limits have been removed in the draft permit in accordance with 40 CFR 463 V. C. (Federal Register Vol. 49, No. 243), which states that "the effluent limitations, guidelines and standards in this final rule are mass-based." To address not using concentration-based effluent limits, the 40 CFR 463 V. C. also says, that using a mass-based limit as calculated above, "assures that processes with the same average process water usage flow rate, whether water is recycled or used on a once-through basis, have the same mass limitations. If only concentration limitations were employed, EPA believes that facilities that recycle process water may be penalized because their discharges would likely have higher concentrations than the concentrations in discharges from processes that use once-through process water."

In addition, the monthly average TSS limits have been removed from this draft permit in accordance with 40 CFR 463 VI. A. 2. (Federal Register Vol. 49, No. 243), which states that monthly limits are not necessary because "there is no effluent variability attributed to the performance of a treatment technology since effluent limitations guidelines and standards are based on raw waste concentrations when good housekeeping techniques are employed rather than the application of a treatment technology."

#### 7.2.5.1 Outfall 001a

The TSS mass-based limits for Outfall 001a are calculated as follows, using the concentration limits defined above per 40 CFR § 463.12 and the APWUFR:

Maximum Daily Mass limit = APWUFR x Concentration x Conversion Factor = lbs/day

Maximum Daily Mass limit = 0.016 mgd x 19 mg/L x 8.34(lb)(l)/(mg)(gal) = **2.53 lbs/day**

This limit is different from the limit in the 2005 permit because EPA discovered an error in the development of the 2005 permit's TSS limits (both daily maximum and monthly average). EPA inadvertently changed the limits for Outfall 001a from the draft permit to the final permit by multiplying the concentration limit by the permitted flow rate, instead of the APWUFR. This was done in error and EPA now corrects this oversight. An example of the derivation error for the monthly average limit is shown below:

Derivation of 2005 draft permit limits = APWUFR x concentration x conversion factor

= 0.016 MGD x 19 mg/l x 8.34 = 2.53 lb/day (monthly average limit in 2005 draft

permit)

Derivation of 2005 final permit limits = permitted flow rate x concentration x conversion factor

= 0.0017 MGD x 19 mg/l x 8.34 = 0.27 lb/day (monthly average limit in 2005 final permit)

Since EPA is now increasing the permitted TSS limit by correcting a technical error, this qualifies as an exception to the antibacksliding requirements found in 40 CFR Section 122.44(1).

#### 7.2.5.2 Outfall 001b

The TSS mass limits for Outfall 001b are calculated as follows, using the concentration limits defined above per 40 CFR § 463.12 and the APWUFR:

Maximum Daily Mass limit = APWUFR x Concentration x Conversion Factor = lbs/day

Maximum Daily Mass limit = 0.018 mgd x 19 mg/L x 8.34(lb)(l)/(mg)(gal) = 2.9 lbs/day

The maximum daily mass-based TSS effluent limitation for Outfall 001b in the draft permit is the same as the 2005 permit and, therefore, in accordance with the antibacksliding requirements found in 40 CFR Section 122.44(1).

### *7.2.6 pH*

The Massachusetts Surface Water Quality Standards require that pH in a Class B water "shall be in the range of 6.5 through 8.3 standard units but not more than 0.5 units outside of the natural background range" (314 CMR 4.05(3)(b)3). To address the Standards, the 2005 permit included a limit range of 6.5 through 8.3 SU for pH for Outfall 001a and Outfall 001b. Although the ELG only requires a pH range of 6.0 to 9.0 SU, the Massachusetts Standards are used in this permit because they are more stringent to protect water quality.

In order to continue to address the Standards and to comply with antibacksliding provisions (40 CFR §122.44(l)(1)), EPA is not proposing any change to the pH limit range or monitoring requirements for Outfalls 001a and 001b in this round of permitting.

### *7.2.7 Oil & Grease*

The 2005 Permit included an average monthly and maximum daily effluent limitation for Oil & Grease (O&G) of 15 mg/L for Outfalls 001a and 001b, and required monitoring of O&G twice per month for Outfall 001a, and once per year for Outfall 001b.

According to Massachusetts Water Quality Standards found at 314 CMR 4.05(3)(b)(7), Class B inland waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portion of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life. A concentration of oil and grease of 15 mg/L is recognized as the level at which many oils produce a visible sheen and/or cause an undesirable taste in fish.[7]

7 Quality Criteria for Water ("The Red Book"), U.S. EPA July 1976.

Although the ELG only requires an O&G limit of 29 mg/l, the Massachusetts Standards are used in this permit because they are more stringent to protect water quality.

In order to continue to address the Standards and to comply with antibacksliding provisions (40 CFR §122.44(l)(1)), EPA is not proposing any change to the O&G effluent limits or monitoring requirements for Outfalls 001a and 001b in this round of permitting.

#### *7.2.8 Temperature*

The 2005 permit included a maximum daily effluent limitation of 28.3 °C for temperature at Outfalls 001a and 001b, and required monitoring of temperature twice per month for Outfall 001a, and once per year for Outfall 001b.

The Three Mile River is classified as a warm water fishery. For Class B waters with warm water fisheries, the Massachusetts Surface Water Quality Standards (314 CMR 4.05(3)(b)2) states that "temperature shall not exceed 83°F (28.3°C) in warm water fisheries. The rise in temperature due to a discharge shall not exceed…5°F (2.8°C) in rivers and streams designated as warm water fisheries (based on the minimum expected flow for the month)."

In order to continue to address the Standards and to comply with antibacksliding provisions (40 CFR §122.44(l)(1)), EPA is not proposing any change to the temperature effluent limits or monitoring requirements for Outfalls 001a and 001b in this round of permitting.

#### *7.2.9 Dissolved Oxygen and % Saturation*

The 2005 permit did not contain a Dissolved Oxygen (DO) effluent limit. The standard 314 CMR 4.05(3)(b) states that DO in Class B warm water fisheries shall not be less than 5.0 mg/l. The 2001 Water Quality Assessment Report for the Taunton River Watershed compiled the Three Mile River sampling data for such parameters as DO, temperature, pH, TSS, nitrate-nitrogen, total phosphorus, and bacteria. Several sampling stations were used upstream of the Draka Cablteq USA outfall, including one station several miles upstream of the outfall near Harvey Street, Taunton (Station TM01) and another approximately one mile upstream of the outfall, near Route 44/Cohannet Street, Taunton (Station TMR 034). The assessment report states that Station TM01 pre-dawn and daytime DO measurements ranged from 6.3 to 8.5 with saturations between 76 and 83%. DO measurements taken at Station TMR 034 were also consistently above 5.0 mg/l. Since the Three Mile River is not impaired for DO and a BOD5 effluent limit is already in place to limit oxygen demand, no DO limit is required in this draft permit.

#### *7.2.10 Total Residual Chlorine*

The facility uses water from a municipal source (Taunton Water Treatment Plant) which disinfects using chloramines. The 2009 Water Quality Report issued by Taunton DPW Water Division indicated that the residual in the treated water ranged from 1.06 to 1.8 mg/l as free chlorine. For this water to be discharged into the Three Mile River, it must meet the total residual chlorine (TRC) aquatic-life criteria of 0.011 and 0.019 mg/L for chronic and acute conditions, respectively.[8] The maximum TRC concentration allowable in the facility's effluent

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http://www.epa.gov/waterscience/criteria/library/redbook.pdf
8 National Recommended Water Quality Criteria, U.S. EPA 2009.
http://www.epa.gov/ost/criteria/wqctable

without violating these criteria is determined by multiplying the water quality standard by the dilution factor for the receiving water (Three Mile River). The equation is shown here:

$$Chlorine\ Limit = Dilution\ Factor \times Water\ Quality\ Standard$$

Using the annual discharge dilution factor of 339 (lower than the daily discharge dilution factor), these calculations result in TRC discharge limits of 3.73 mg/l and 6.44 mg/l for chronic and acute conditions, respectively. Since these concentrations are above the maximum residual applied by the municipal source (1.8 mg/l), the discharge from the facility would always be under the required criteria. Consumption of the residual is also expected throughout the drinking water distribution system, which would likely cause a significant decrease in TRC before discharge from the facility. Although the MassDEP toxicity policy generally limits the TRC concentration to 1.0 mg/l for facilities with dilution over 100, in this case EPA is not requiring a limit. Due to the low frequency of discharge, the expected attenuation of chlorine residual before discharge, and the high dilution, EPA is requiring that the facility only monitor and report the TRC. Should more information become available that would suggest the need for a TRC limit, EPA may reopen the permit at that time.

**8. Essential Fish Habitat**

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.(1998)), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat," 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," 16 U.S.C. § 1802(10). "Adverse impact" means any impact which reduces the quality and/or quantity of EFH, 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Essential fish habitat is only designated for fish species for which federal Fisheries Management Plans exist. 16 U.S.C. § 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

Of the designated EFH species, only Atlantic salmon is believed to be present during one or more life stage within the EFH Area, which encompasses the existing discharge site. No "habitat area of particular concern" as defined under Section 600.815(a)(9) of the Magnuson-Stevens Act, has been designated for this site. Although EFH has been designated for this general location, EPA has concluded that this activity is not likely to affect EFH or its associated species for the following reasons:

- The quantity of the discharge from the facility is at most 0.0027 MGD (except one annual discharge of at most 0.018 MGD) resulting in a dilution factor of 2,253 (and 339 once per year);
- The facility withdraws no water from the Three Mile River, so no life stages of Atlantic salmon are vulnerable to impingement or entrainment from this facility;
- Limits specifically protective of aquatic organisms have been established for oil & grease, temperature, and pH;

- The permit prohibits any violation of state water quality standards.

EPA believes that the conditions and limitations contained within the draft permit adequately protect all aquatic life, including Atlantic salmon, the only species in the river with EFH designation. Impacts associated with this facility to the EFH species, its habitat and forage, have been minimized to the extent that no significant adverse impacts are expected. Further mitigation is not warranted. Should adverse impacts to EFH be detected as a result of this permit action, or if new information is received that changes the basis for EPA's conclusions, NMFS will be contacted and an EFH consultation will be re-initiated.

## 9. Endangered Species Act

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA) grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Marine Fisheries Service (NOAA Fisheries) administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit.

According to the USFWS listing of federally endangered and threatened species, dated July 31, 2008, there are three species listed and **no critical habitat within Bristol County**. The Northern Red-bellied cooter is listed as endangered, and identified as living in inland ponds and rivers in Raynham and Taunton. According to the Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program list of rare species by Town[9], no federally listed endangered or threatened species are known to occur in the vicinity of the discharge.

EPA believes the proposed limits are sufficiently stringent to assure that water quality standards will be met and to ensure protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The Region finds that adoption of the proposed permit is unlikely to adversely affect any threatened or endangered species or its critical habitat. If adverse effects do occur as a result of this permit action, or if new information becomes available that changes the basis for this conclusion, then EPA will notify and consultation will be promptly initiated with both the USFWS and the NOAA Fisheries. A copy of the Draft Permit has been provided to both USFWS and NOAA Fisheries for review and comment.

## 10. Monitoring and Reporting

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §§122.41 (j), 122.44 (l), and 122.48.

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9 http://www.mass.gov/dfwele/dfw/nhesp/species_info/town_lists/town_t.htm#taunton

The draft permit includes new provisions related to Discharge Monitoring Report (DMR) submittals to EPA and the State. The draft permit requires that, no later than one year after the effective date of the permit, the permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR, unless the permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt-out request").

In the interim (until one year from the effective date of the permit), the permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR.

NetDMR is a national web-based tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR § 122.41 and § 403.12. NetDMR is accessed from the following URL: http://www.epa.gov/netdmr. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website.

EPA currently conducts free training on the use of NetDMR, and anticipates that the availability of this training will continue to assist permittees with the transition to use of NetDMR. To participate in upcoming trainings, visit http://www.epa.gov/netdmr for contact information for Massachusetts.

The draft permit requires the permittee to report monitoring results obtained during each calendar month using NetDMR, no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees must continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

The draft permit also includes an "opt-out" request process. Permittees who believe they can not use NetDMR due to technical or administrative infeasibilities, or other logical reasons, must demonstrate the reasonable basis that precludes the use of NetDMR. These permittees must submit the justification, in writing, to EPA at least sixty (60) days prior to the date the facility would otherwise be required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months from the date of EPA approval. The opt-outs expire at the end of this twelve (12) month period. Upon expiration, the permittee must submit DMRs and reports to EPA using NetDMR, unless the permittee submits a renewed opt-out request sixty (60) days prior to expiration of its opt-out, and such a request is approved by EPA.

Until electronic reporting using NetDMR begins, or for those permittees that receive written approval from EPA to continue to submit hard copies of DMRs, the Draft Permit requires that submittal of DMRs and other reports required by the permit continue in hard copy format. Hard

copies of DMRs must be postmarked no later than the 15th day of the month following the completed reporting period.

## 11. State Certification Requirements

Under CWA section 401(a)(1), EPA may not issue a permit unless the MassDEP either certifies that the effluent limitations contained in this permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or waives its right to such a certification. EPA has requested that MassDEP certify the permit. EPA expects that the permit will be certified. Regulations governing state certification are set forth in 40 CFR §§ 124.53 and 124.55.

## 12. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to **Mr. Michael Cobb, U.S. Environmental Protection Agency, Region 1 (New England), 5 Post Office Square - Suite 100, Mail Code OEP06-1, Boston, MA 02109-3912**. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the draft permit, the EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 CFR § 124.19.

## 13. EPA and MassDEP Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Michael Cobb
U.S. Environmental Protection Agency
Region 1 (New England)
5 Post Office Square, Suite 100
Mail Code OEP06-1
Boston, MA 02109-3912
Telephone: (617) 918-1369
Email: cobb.michael@epa.gov

Kathleen Keohane
Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608
Telephone: (508) 767-2856
Email: kathleen.keohane@state.ma.us

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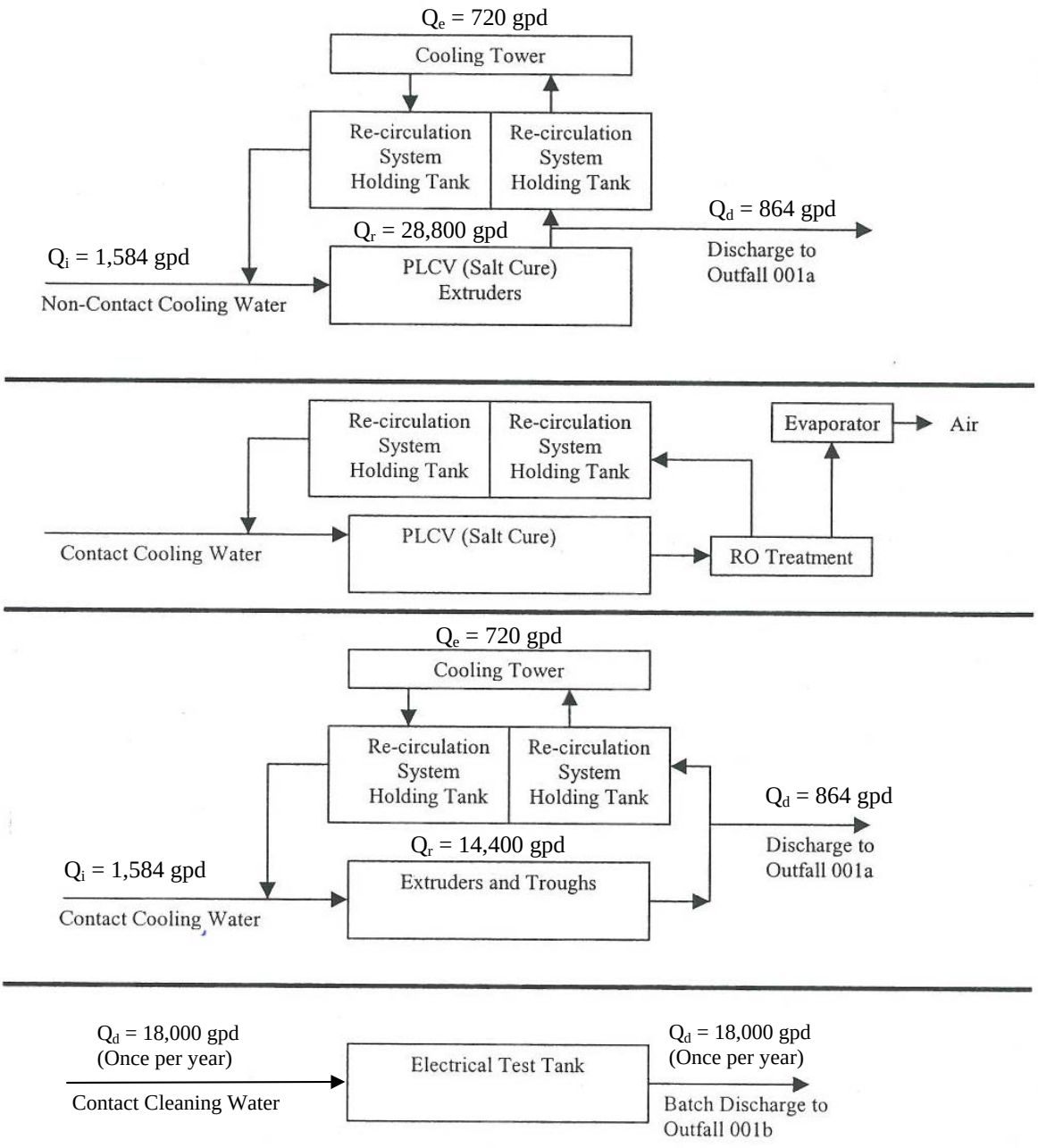
**Stephen S. Perkins, Director**
**Office of Ecosystem Protection**
**U.S. Environmental Protection Agency**

***Attachment A – Aerial View of Facility***

## *Attachment B – Line Drawing*



*Attachment C - DMR Data Summary, October 31, 2005 through March 31, 2010*

| **Outfall 001a** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitoring Period End Date** | **Monthly Ave $BOD_5$** | | **Daily Max $BOD_5$** | | **Monthly Ave Flow** | **Daily Max Flow** | **Monthly Ave O&G** | **Daily Max O&G** | **Min pH** | **Max pH** | **Monthly Ave TSS** | | **Daily Max TSS** | | **Temp** |
| | **lb/d** | **mg/L** | **lb/d** | **mg/L** | **gal/d** | **gal/d** | **mg/L** | **mg/L** | **SU** | **SU** | **lb/d** | **mg/L** | **lb/d** | **mg/L** | **deg C** |
| **10/31/2005** | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3/31/2006** | 0.33 | **110.** | **0.83** | **110.** | 68.43 | 734.9 | **23.** | **23.** | 6.7 | 6.7 | 0.02 | 8. | 0.06 | 8. | 16. |
| **8/31/2009** | --- | --- | --- | --- | 5.77 | 142.9 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **10/31/2009** | --- | --- | --- | --- | 3.41 | 105.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1/31/2010** | --- | --- | --- | --- | 1094.91 | 16393.8 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3/31/2010** | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | | | | | | | | | | | |
| **Average** | 0.33 | 110. | 0.83 | 110. | 293.13 | 4344.35 | 23. | 23. | 6.7 | 6.7 | 0.02 | 8. | 0.06 | 8. | 16. |
| **Minimum** | 0.33 | 110. | 0.83 | 110. | 3.41 | 105.8 | 23. | 23. | 6.7 | 6.7 | 0.02 | 8. | 0.06 | 8. | 16. |
| **Maximum** | 0.33 | 110. | 0.83 | 110. | 1094.91 | 16393.8 | 23. | 23. | 6.7 | 6.7 | 0.02 | 8. | 0.06 | 8. | 16. |
| **Permit Limit** | **0.37** | **26** | **0.59** | **26** | **1700** | **2700** | **15** | **15** | **6.5** | **8.3** | **0.27** | **19** | **0.33** | **19** | **28.3** |

| **Outfall 001b** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitoring Period End Date** | **Monthly Ave $BOD_5$** | | **Daily Max $BOD_5$** | | **Daily Max Flow** | **Monthly Ave O&G** | **Daily Max O&G** | **Min pH** | **Max pH** | **Monthly Ave TSS** | | **Daily Max TSS** | | **Temp** |
| | **lb/d** | **mg/L** | **lb/d** | **mg/L** | **gal/d** | **mg/L** | **mg/L** | **SU** | **SU** | **lb/d** | **mg/L** | **lb/d** | **mg/L** | **deg C** |
| **10/31/2005** | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **6/30/2006** | 2. | 4. | 2. | 4. | | 8.9 | 8.9 | 7.1 | 7.1 | 2. | 4. | 2. | 4. | |
| **7/31/2006** | .00606 | 4. | 0.01516 | 4. | 18000. | 8.9 | 8.9 | 7.1 | 7.1 | 0.00606 | 4. | 0.01516 | 4. | 27. |
| **6/30/2008** | 0.13 | **44.** | .33 | **44.** | 18000. | 1.2 | 1.2 | **6.4** | 6.4 | 0.05 | 4. | 0.13 | 4. | 27. |
| **7/31/2009** | 0.13 | 9.8 | .07 | 9.8 | 18000. | 1.2 | 1.2 | 6.6 | 6.6 | 0.01 | 4. | 0.02 | 4. | 27. |
| **3/31/2010** | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | | | | | | | | | | |
| **Average** | 0.567 | 15.45 | 0.604 | 15.45 | 18000. | 5.05 | 5.05 | 6.8 | 6.8 | 0.517 | 4. | 0.541 | 4. | 27. |
| **Minimum** | 0.006 | 4. | 0.015 | 4. | 18000. | 1.2 | 1.2 | 6.4 | 6.4 | 0.006 | 4. | 0.015 | 4. | 27. |
| **Maximum** | 2. | 44. | 2. | 44. | 18000. | 8.9 | 8.9 | 7.1 | 7.1 | 2. | 4. | 2. | 4. | 27. |
| **Permit Limit** | **3.9** | **26** | **3.9** | **26** | **18000** | **15** | **15** | **6.5** | **8.3** | **2.9** | **19** | **2.9** | **19** | **28.3** |

Note: Data presented for Outfalls 001a and 001b only represent months (from October, 2005 to March, 2010) in which a discharge was recorded