MODIFICATION OF 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),

University of Massachusetts Boston

is authorized to discharge from the facility located at

University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125

to receiving water named

Dorchester Bay (MA70-03)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued on February 7, 2013, except as modified in Part I.D.1.c on Page 7 and the addition of a State Permit Condition in underline in Part I.G on Page 12.

This permit modification shall become effective on upon the date of signature.

This permit and the authorization to discharge expire at midnight, on August 31, 2018.

This modified permit is issued pursuant to 40 C.F.R. § 124.5, and revises and supersedes the permit issued on February 7, 2013.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions, and 25 pages in Part II Standard Conditions.

Signed this 15th day of June , 2018

S/SIGNATURE ON FILE

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency
Boston, MA

S/SIGNATURE ON FILE

Lealdon Langley, Director
Massachusetts Wetlands and
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 the effective date and lasting through the expiration date, the permittee is authorized to discharge **non-contact cooling water** from **outfall 001** to Dorchester Bay. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Units**	**Discharge Limitation**			**Monitoring Requirement[1,2]**	
		Average Monthly	**Maximum Daily**	**Annual Average**	**Measurement Frequency**	**Sample Type**
Flow Rate	MGD	17.2	18.4	12.9[3]	Continuous	Flow Meter
pH[4]	s.u.	6.5 - 8.5		--	1 / Week	Grab
Effluent Temperature	˚F	Report	80[5] 85[5]	--	Continuous	Meter
Influent Temperature	˚F	Report	Report	--	Continuous	Meter
Rise in Temperature	˚F	--	See Footnote 6	--	3 / day	Calculation

Footnotes

(1) Effluent samples taken in compliance with the monitoring requirements specified above shall be taken at a location that provides a representative sample of the effluent prior to discharge to the receiving water.

(2) All samples shall be tested using the analytical methods found in 40 CFR Section 136 or alternative methods approved by EPA in accordance with the procedures at 40 CFR Section 136.

(3) Annual average flow value shall be reported daily as a rolling annual average based on the previous 365 days.

(4) The pH of the effluent shall be in the range of 6.5 standard units (s.u.) to 8.5 s.u. and not more than 0.2 units outside the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this class.

(5) The maximum daily temperature limit of 80°F shall be based on the mean daily temperature over a twenty-four (24) hour period. The maximum daily temperature limit of 85°F is an instantaneous maximum not to be exceeded.

(6) The rise in temperature (calculated as the difference between the recorded instantaneous effluent temperature and influent temperature) shall not exceed 10°F at low tide, 11°F at mid-tide, and 12°F at high tide. The permittee shall report the maximum rise in temperature for each tidal height in a 24-hour period based on continuous measurement of influent and effluent temperatures. Low and high tide shall be defined by the daily tide prediction at NOAA Boston Station ID Number 8443970. Mid-tide shall be defined as the tidal height approximately three (3) hours after low or high tide.

Part I.A. (continued)

2. Any discharge that causes a violation of water quality standards of the receiving waters, or otherwise interferes with attainment of any designated use of Class SB waters and existing uses of Dorchester Bay, is prohibited.

3. Any discharge of floating solids, visible oil sheen or foam is prohibited.

4. 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.

5. The use of biocides or other chemical additives in non-contact cooling water is prohibited.

6. This permit shall be modified, or revoked and reissued to comply with any applicable effluent standard or limitation issued 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 this permit; or

   b. controls any pollutant not limited by this permit.

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

7. 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 or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

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

      (ii) 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

      (iii) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

   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":

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

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

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

      (iv) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

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.

8. 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

This permit authorizes the permittee to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I.A.1. of this permit. Discharges of wastewater from any other point sources which are not authorized by this permit or other NPDES permits shall be reported in accordance with Section D.1.e.(1) of the Standard Conditions of this permit (Twenty-four hour reporting).

C. UNUSUAL IMPINGEMENT EVENT

1. The permittee shall visually inspect the traveling screen at the CWIS once every twenty-four (24) hours for dead and live fish when circulating pumps are in operation. The permittee shall begin the inspection at the start of screen rotation and continue for at least one full rotation of the screen. An "unusual impingement event" (UIE) is defined as any occasion on which the permittee observes on the traveling screen, or estimates based on time-limited observations, 20 or more total fish within any 6 hour period. During the UIE, the permittee shall rotate the traveling screen continuously until impingement decreases to three (3) or fewer fish per hour.

2. UIEs will be reported to the Regional Administrator and Commissioner no later than twenty-four (24) hours after the permittee is aware of or has reason to believe an UIE has occurred as required in Part II.D.1.e. of this Permit. If the UIE is observed during weekend, holiday or evening periods, the permittee shall notify the EPA and MassDEP on the next business day.

3. The permittee shall prepare and submit a written report regarding such UIE within five (5) business days to EPA and MassDEP at the addresses found in Part I.F.1.c. of this permit. The oral and written reports shall include the following information:

a. An enumeration and recording of all dead fish by species. Report the species, size ranges (maximum and minimum length), and approximate number of organisms involved in the incident. In addition, a representative sample of 25% of fish specimens from each species, up to a maximum of 50 total fish specimens, shall be measured to the nearest centimeter total length.

b. The date and time of occurrence.

c. The determination or opinion of the permittee as to the reason the incident occurred.

4. In addition to EPA and MassDEP, the permittee shall report UIEs to the Massachusetts Division of Marine Fisheries at the following address:

Division of Marine Fisheries
Annisquam Marine Fisheries Station
Attn: Dr. Jack P. Schwartz
30 Emerson Avenue
Gloucester, MA 01930
(978) 282-0308

D. BEST TECHNOLOGY AVAILABLE

1. The location, design, construction, and capacity of the permittee's non-contact cooling water intake structure (CWIS) shall reflect the best technology available (BTA) for minimizing the adverse environmental impacts from impingement of aquatic organisms and entrainment of eggs and larvae. In order to satisfy this BTA requirement, the permittee shall:

a. Operate variable frequency drives (VFDs) on at least two of the large salt water pumps and operate the VFDs in conjunction with a supplemental cooling tower to:

(i) Limit the maximum daily intake flow to 18.4 MGD, maximum monthly average flow to 17.2 MGD, and annual average daily flow to 12.9 MGD.

(ii) Limit the maximum through-screen velocity to no more than 0.5 feet per second.

b. Rotate the traveling screen at the maximum rotation frequency recommended by the manufacturer, but not less than once per day, in order to minimize impingement duration. The manufacturer’s recommended maximum screen rotation frequency shall be cited in the **CWIS Biological Monitoring Report** detailed in Part I.E.3. This requirement shall not apply to any period that the traveling screen is not in working order due to required maintenance.

c. Operate a fish return trough that transports impinged fish and other aquatic organisms to Dorchester Bay avoiding vertical drops and sharp turns or angles. The end of the fish return trough shall be submerged at all times when the traveling screen is rotated at a location that minimizes the potential for re-impingement.

2. The permittee shall evaluate the feasibility of operating the supplemental cooling tower year-round. Within three (3) years after initiating full operation of the supplemental cooling tower, the permittee shall submit to EPA and MassDEP a **Cooling Tower Operational Study** that summarizes the results of the evaluation and estimates flow reductions, energy use, and potable water use resulting from increased operation of the cooling tower.

3. Any change in the location, design, or capacity of the intake structure outside of the specifications of this Permit must be approved in advance in writing by the Regional Administrator and Director of the Wastewater Management Program of MassDEP.

4. The permittee shall notify EPA and MassDEP of any change in the location, design, or capacity of the intake structures outside of the specifications of this Permit, as such changes may require a permit modification. The design of the intake structures shall be reviewed for conformity to applicable regulations pursuant to Section 316(b) of the CWA when such regulations are promulgated.

E. BIOLOGICAL SAMPLING

1. The Permittee shall conduct entrainment sampling three (3) times per week between February 15 and July 31st each year. Three entrainment samples shall be collected each week targeting three separate periods of the diurnal cycle (for example, once on Monday morning at 8:00 am, once on Wednesday afternoon at 2:00 pm, and once on Friday night at 8:00 pm). At a minimum, the sampling program shall address the following:

   a. Sampling shall be conducted or supervised on-site by a qualified biologist using a 0.333 millimeter mesh 60-centimeter plankton net. The volume of water sampled shall be measured and equal to approximately 100 cubic meters (m^3). A standard mesh of 0.202 mm shall be required during the period of highest abundance of early stage winter flounder (late March to late April). After each sample, the collection nets shall be washed down and the sample transferred from the net to a jar containing sufficient formalin to produce a 5 to 10% solution.

   b. In the laboratory, all eggs and larvae shall be identified to the lowest practical taxon and counted. Subsampling with a plankton splitter may be used if the

count of eggs and larvae in a sample is greater than 400 organisms so that at least 200 eggs and larvae will be present in any subsample.

2. Ichthyoplankton counts shall be converted to densities per 100 m^3 of water based on flow through the sampling net and the data shall be presented in the annual **CWIS Biological Monitoring Report** detailed in Part I.E.3 below. Estimates of total numbers of ichthyoplankton based on facility flow rates shall also be provided. Entrainment losses shall be converted from weekly estimates of density per unit volume, to monthly and annual loss estimates based on the permitted flow. In addition, loss estimates should be converted to adult equivalents for species for which regionally specific larval survival rates are available.

3. Results of the entrainment monitoring shall be reported annually in a **CWIS Biological Monitoring Report**, which shall include monitoring logs and raw data collected in the previous year and summarize the data both graphically, where appropriate, and in text. The monitoring report shall also include the results of all calculations conducted in accordance with Part I.E.2. The **CWIS Biological Monitoring Report** shall be submitted to EPA and MassDEP by December 1st.

4. After two years, the Permittee may submit a written request to the EPA and MassDEP requesting a reduction in the frequency of the required entrainment monitoring requirements. Until written notice is received by certified mail from the EPA indicating that the intake screen monitoring and cleaning frequency has been changed, the Permittee is required to continue monitoring and cleaning at the frequency specified in this permit.

F. 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 – Northeast Region
Bureau of Waste Prevention
205B Lowell Street
Wilmington, MA 01887

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

Hard copies of the CWIS Biological Monitoring Report required under Part I.E.3. of this permit and any written reports required under Part I.C. of this permit shall also be submitted to the State at the following address:

MassDEP
Watershed Planning Program
627 Main St, 2nd Floor
Worcester, MA 01608

G. 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 the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 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 C.F.R. 124.53, M.G.L. 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.

4. The permittee shall conduct year-round impingement monitoring three times per week for a minimum of two years, at which time the permittee can request a reduction in monitoring frequency from MassDEP. Sampling should be initiated after the variable-speed drives for the intake pumps have been installed, or two years after permit issuance, whichever occurs first. There shall be two impingement monitoring "seasons" with slightly different protocols for each:

First Season (February 15-July 31):
During the First Season impingement collections may take place on the same days that entrainment monitoring takes place. In any case, each of the three impingement samples collected in any week shall target a different period of the diurnal cycle (for example, sampling would be conducted once on Monday morning at 6:00 am, once on Wednesday afternoon at 2:00 pm, and once on Friday night at 8:00 pm). Each impingement sample shall be separated by a minimum of 24-hours. Each collection shall cover a period of at least six hours following an initial, cleansing screen-wash and the exact time period shall be recorded. All squid, lobsters, fish and other vertebrates impinged over the period between screen washes shall be collected and kept in an aerated, sea-water-filled container of a large-enough size such that any further harm to impinged organisms is not unduly increased. If any turtles are impinged, these should be photographed and released in an area safe from re-impingement (but not to the fish return trough). A qualified biologist, or individual supervised on-site by a qualified biologist, shall collect the impinged organisms, key them to species, estimate the length of each organism (to the nearest centimeter), record this information in a log book and release the impinged organisms to the fish-return trough or to the ocean in another location far away enough from the intake that they would be unlikely to be re-impinged. If any organisms are collected that are unfamiliar to the supervising biologist, one or two of these organisms shall be put aside and preserved in alcohol or formalin, and sent to a qualified taxonomist for identification. If an "unusual impingement event" is taking place, the protocols outlined in Section C of this permit shall be followed.

Second Season (August 1-February 14):
During the Second Season, impingement collections shall also be made three times per week, and each collection shall target a different period of the diurnal cycle as outlined above for the First Season. Unless an "unusual impingement event" (see above) is taking place, all organisms impinged over the period between screen washes shall be collected either by a qualified biologist, analyzed on site and released (as outlined above for the First Season), or by a trained technician if a qualified biologist is not available. If impinged lobster, squid, fish and other vertebrate samples are collected by a trained technician, the fish and squids shall be preserved in alcohol or formalin, at concentrations appropriate for specimen storage, and set aside for weekly transfer to a qualified biologist for identification to species, measurement to the nearest centimeter, record keeping and reporting as outlined for the First Season. Lobsters should be counted, measured to the nearest centimeter and released. Turtles should be treated as outlined for the first season. If an "unusual impingement event" is taking place, the protocols outlined in Section C of this permit shall be followed.

5. The permittee shall conduct a diver inspection of the intake structure by the end of the calendar year 2018 and subsequent annual inspections shall be conducted as long as this NPDES permit is in effect. Within sixty (60) days of each inspection, a report including photographs of the intake structure shall be provided to MassDEP.

DRAFT MODIFICATION OF 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),

University of Massachusetts Boston

is authorized to discharge from the facility located at

University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125

to receiving water named

Dorchester Bay (MA70-03)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued on February 7, 2013, except as modified in underline/strikeout in Part I.D.1.c on Page 7 and the addition of a State Permit Condition in underline in Part I.G on Page 12.

This permit modification shall become effective on the first day of the calendar month following sixty (60) days after signature if comments are received. If no comments are received the modification shall become effective upon the date of signature.

This permit and the authorization to discharge expire at midnight, on August 31, 2018.

This modified permit is issued pursuant to 40 C.F.R. § 124.5, and revises and supersedes the permit issued on February 7, 2013.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions, and 25 pages in Part II Standard Conditions.

Signed this day of , 2018

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency
Boston, MA

Lealdon Langley, Director
Massachusetts Wetlands and
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 the effective date and lasting through the expiration date, the permittee is authorized to discharge **non-contact cooling water** from **outfall 001** to Dorchester Bay. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Units**	**Discharge Limitation**			**Monitoring Requirement[1,2]**	
		Average Monthly	**Maximum Daily**	**Annual Average**	**Measurement Frequency**	**Sample Type**
Flow Rate	MGD	17.2	18.4	12.9[3]	Continuous	Flow Meter
pH[4]	s.u.	6.5 - 8.5		--	1 / Week	Grab
Effluent Temperature	˚F	Report	80[5] 85[5]	--	Continuous	Meter
Influent Temperature	˚F	Report	Report	--	Continuous	Meter
Rise in Temperature	˚F	--	See Footnote 6	--	3 / day	Calculation

Footnotes

(1) Effluent samples taken in compliance with the monitoring requirements specified above shall be taken at a location that provides a representative sample of the effluent prior to discharge to the receiving water.

(2) All samples shall be tested using the analytical methods found in 40 CFR Section 136 or alternative methods approved by EPA in accordance with the procedures at 40 CFR Section 136.

(3) Annual average flow value shall be reported daily as a rolling annual average based on the previous 365 days.

(4) The pH of the effluent shall be in the range of 6.5 standard units (s.u.) to 8.5 s.u. and not more than 0.2 units outside the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this class.

(5) The maximum daily temperature limit of 80°F shall be based on the mean daily temperature over a twenty-four (24) hour period. The maximum daily temperature limit of 85°F is an instantaneous maximum not to be exceeded.

(6) The rise in temperature (calculated as the difference between the recorded instantaneous effluent temperature and influent temperature) shall not exceed 10°F at low tide, 11°F at mid-tide, and 12°F at high tide. The permittee shall report the maximum rise in temperature for each tidal height in a 24-hour period based on continuous measurement of influent and effluent temperatures. Low and high tide shall be defined by the daily tide prediction at NOAA Boston Station ID Number 8443970. Mid-tide shall be defined as the tidal height approximately three (3) hours after low or high tide.

Part I.A. (continued)

2. Any discharge that causes a violation of water quality standards of the receiving waters, or otherwise interferes with attainment of any designated use of Class SB waters and existing uses of Dorchester Bay, is prohibited.

3. Any discharge of floating solids, visible oil sheen or foam is prohibited.

4. 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.

5. The use of biocides or other chemical additives in non-contact cooling water is prohibited.

6. This permit shall be modified, or revoked and reissued to comply with any applicable effluent standard or limitation issued 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 this permit; or

   b. controls any pollutant not limited by this permit.

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

7. 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 or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

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

      (ii) 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

      (iii) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

   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":

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

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

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

      (iv) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

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.

8. 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

This permit authorizes the permittee to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I.A.1. of this permit. Discharges of wastewater from any other point sources which are not authorized by this permit or other NPDES permits shall be reported in accordance with Section D.1.e.(1) of the Standard Conditions of this permit (Twenty-four hour reporting).

C. UNUSUAL IMPINGEMENT EVENT

1. The permittee shall visually inspect the traveling screen at the CWIS once every twenty-four (24) hours for dead and live fish when circulating pumps are in operation. The permittee shall begin the inspection at the start of screen rotation and continue for at least one full rotation of the screen. An "unusual impingement event" (UIE) is defined as any occasion on which the permittee observes on the traveling screen, or estimates based on time-limited observations, 20 or more total fish within any 6 hour period. During the UIE, the permittee shall rotate the traveling screen continuously until impingement decreases to three (3) or fewer fish per hour.

2. UIEs will be reported to the Regional Administrator and Commissioner no later than twenty-four (24) hours after the permittee is aware of or has reason to believe an UIE has occurred as required in Part II.D.1.e. of this Permit. If the UIE is observed during weekend, holiday or evening periods, the permittee shall notify the EPA and MassDEP on the next business day.

3. The permittee shall prepare and submit a written report regarding such UIE within five (5) business days to EPA and MassDEP at the addresses found in Part I.F.1.c. of this permit. The oral and written reports shall include the following information:

a. An enumeration and recording of all dead fish by species. Report the species, size ranges (maximum and minimum length), and approximate number of organisms involved in the incident. In addition, a representative sample of 25% of fish specimens from each species, up to a maximum of 50 total fish specimens, shall be measured to the nearest centimeter total length.

b. The date and time of occurrence.

c. The determination or opinion of the permittee as to the reason the incident occurred.

4. In addition to EPA and MassDEP, the permittee shall report UIEs to the Massachusetts Division of Marine Fisheries at the following address:

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30 Emerson Avenue
Gloucester, MA 01930
(978) 282-0308

D. BEST TECHNOLOGY AVAILABLE

1. The location, design, construction, and capacity of the permittee's non-contact cooling water intake structure (CWIS) shall reflect the best technology available (BTA) for minimizing the adverse environmental impacts from impingement of aquatic organisms and entrainment of eggs and larvae. In order to satisfy this BTA requirement, the permittee shall:

a. Operate variable frequency drives (VFDs) on at least two of the large salt water pumps and operate the VFDs in conjunction with a supplemental cooling tower to:

(i) Limit the maximum daily intake flow to 18.4 MGD, maximum monthly average flow to 17.2 MGD, and annual average daily flow to 12.9 MGD.

(ii) Limit the maximum through-screen velocity to no more than 0.5 feet per second.

b. Rotate the traveling screen at the maximum rotation frequency recommended by the manufacturer, but not less than once per day, in order to minimize impingement duration. The manufacturer’s recommended maximum screen rotation frequency shall be cited in the **CWIS Biological Monitoring Report** detailed in Part I.E.3. This requirement shall not apply to any period that the traveling screen is not in working order due to required maintenance.

c. ~~Install and o~~Operate a ~~new~~ fish return trough that transports impinged fish and other aquatic organisms to Dorchester Bay ~~in a separate trough from the non-contact cooling water discharge pipe. The new fish return trough shall~~ avoiding vertical drops and sharp turns or angles. The end of the ~~new~~ fish return trough shall be submerged at all times when the traveling screen is rotated at a location that minimizes the potential for re-impingement.

2. The permittee shall evaluate the feasibility of operating the supplemental cooling tower year-round. Within three (3) years after initiating full operation of the supplemental cooling tower, the permittee shall submit to EPA and MassDEP a **Cooling Tower Operational Study** that summarizes the results of the evaluation and estimates flow reductions, energy use, and potable water use resulting from increased operation of the cooling tower.

3. Any change in the location, design, or capacity of the intake structure outside of the specifications of this Permit must be approved in advance in writing by the Regional Administrator and Director of the Wastewater Management Program of MassDEP.

4. The permittee shall notify EPA and MassDEP of any change in the location, design, or capacity of the intake structures outside of the specifications of this Permit, as such changes may require a permit modification. The design of the intake structures shall be reviewed for conformity to applicable regulations pursuant to Section 316(b) of the CWA when such regulations are promulgated.

E. BIOLOGICAL SAMPLING

1. The Permittee shall conduct entrainment sampling three (3) times per week between February 15 and July 31st each year. Three entrainment samples shall be collected each week targeting three separate periods of the diurnal cycle (for example, once on Monday morning at 8:00 am, once on Wednesday afternoon at 2:00 pm, and once on Friday night at 8:00 pm). At a minimum, the sampling program shall address the following:

   a. Sampling shall be conducted or supervised on-site by a qualified biologist using a 0.333 millimeter mesh 60-centimeter plankton net. The volume of water sampled shall be measured and equal to approximately 100 cubic meters (m^3). A standard mesh of 0.202 mm shall be required during the period of highest abundance of early stage winter flounder (late March to late April). After each sample, the collection nets shall be washed down and the sample transferred from the net to a jar containing sufficient formalin to produce a 5 to 10% solution.

   b. In the laboratory, all eggs and larvae shall be identified to the lowest practical taxon and counted. Subsampling with a plankton splitter may be used if the

count of eggs and larvae in a sample is greater than 400 organisms so that at least 200 eggs and larvae will be present in any subsample.

2. Ichthyoplankton counts shall be converted to densities per 100 m^3 of water based on flow through the sampling net and the data shall be presented in the annual **CWIS Biological Monitoring Report** detailed in Part I.E.3 below. Estimates of total numbers of ichthyoplankton based on facility flow rates shall also be provided. Entrainment losses shall be converted from weekly estimates of density per unit volume, to monthly and annual loss estimates based on the permitted flow. In addition, loss estimates should be converted to adult equivalents for species for which regionally specific larval survival rates are available.

3. Results of the entrainment monitoring shall be reported annually in a **CWIS Biological Monitoring Report**, which shall include monitoring logs and raw data collected in the previous year and summarize the data both graphically, where appropriate, and in text. The monitoring report shall also include the results of all calculations conducted in accordance with Part I.E.2. The **CWIS Biological Monitoring Report** shall be submitted to EPA and MassDEP by December 1st.

4. After two years, the Permittee may submit a written request to the EPA and MassDEP requesting a reduction in the frequency of the required entrainment monitoring requirements. Until written notice is received by certified mail from the EPA indicating that the intake screen monitoring and cleaning frequency has been changed, the Permittee is required to continue monitoring and cleaning at the frequency specified in this permit.

F. 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 – Northeast Region
Bureau of Waste Prevention
205B Lowell Street
Wilmington, MA 01887

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

Hard copies of the CWIS Biological Monitoring Report required under Part I.E.3. of this permit and any written reports required under Part I.C. of this permit shall also be submitted to the State at the following address:

MassDEP
Watershed Planning Program
627 Main St, 2nd Floor
Worcester, MA 01608

G. 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 the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 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 C.F.R. 124.53, M.G.L. 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.

4. The permittee shall conduct year-round impingement monitoring three times per week for a minimum of two years, at which time the permittee can request a reduction in monitoring frequency from MassDEP. Sampling should be initiated after the variable-speed drives for the intake pumps have been installed, or two years after permit issuance, whichever occurs first. There shall be two impingement monitoring "seasons" with slightly different protocols for each:

First Season (February 15-July 31):
During the First Season impingement collections may take place on the same days that entrainment monitoring takes place. In any case, each of the three impingement samples collected in any week shall target a different period of the diurnal cycle (for example, sampling would be conducted once on Monday morning at 6:00 am, once on Wednesday afternoon at 2:00 pm, and once on Friday night at 8:00 pm). Each impingement sample shall be separated by a minimum of 24-hours. Each collection shall cover a period of at least six hours following an initial, cleansing screen-wash and the exact time period shall be recorded. All squid, lobsters, fish and other vertebrates impinged over the period between screen washes shall be collected and kept in an aerated, sea-water-filled container of a large-enough size such that any further harm to impinged organisms is not unduly increased. If any turtles are impinged, these should be photographed and released in an area safe from re-impingement (but not to the fish return trough). A qualified biologist, or individual supervised on-site by a qualified biologist, shall collect the impinged organisms, key them to species, estimate the length of each organism (to the nearest centimeter), record this information in a log book and release the impinged organisms to the fish-return trough or to the ocean in another location far away enough from the intake that they would be unlikely to be re-impinged. If any organisms are collected that are unfamiliar to the supervising biologist, one or two of these organisms shall be put aside and preserved in alcohol or formalin, and sent to a qualified taxonomist for identification. If an "unusual impingement event" is taking place, the protocols outlined in Section C of this permit shall be followed.

Second Season (August 1-February 14):
During the Second Season, impingement collections shall also be made three times per week, and each collection shall target a different period of the diurnal cycle as outlined above for the First Season. Unless an "unusual impingement event" (see above) is taking place, all organisms impinged over the period between screen washes shall be collected either by a qualified biologist, analyzed on site and released (as outlined above for the First Season), or by a trained technician if a qualified biologist is not available. If impinged lobster, squid, fish and other vertebrate samples are collected by a trained technician, the fish and squids shall be preserved in alcohol or formalin, at concentrations appropriate for specimen storage, and set aside for weekly transfer to a qualified biologist for identification to species, measurement to the nearest centimeter, record keeping and reporting as outlined for the First Season. Lobsters should be counted, measured to the nearest centimeter and released. Turtles should be treated as outlined for the first season. If an "unusual impingement event" is taking place, the protocols outlined in Section C of this permit shall be followed.

5. The permittee shall conduct a diver inspection of the intake structure by the end of the calendar year 2018 and subsequent annual inspections shall be conducted as long as this NPDES permit is in effect. Within sixty (60) days of each inspection, a report including photographs of the intake structure shall be provided to MassDEP.

NPDES PART II STANDARD CONDITIONS
(January, 2007)

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed $25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

Note: See 40 CFR §122.41(a)(2) for complete “Duty to Comply” regulations.

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or notifications of planned changes or anticipated noncompliance does not stay any permit condition.

3. Duty to Provide Information

The permittee shall furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit.

4. Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including "sludge-only facilities"), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or permittee;
(2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).

c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

8. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Administrator. (The Regional Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, or local laws and regulations.

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

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

3. Duty to Mitigate

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

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can be reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) i) The permittee submitted notices as required under Paragraph 4.c. of this section.
ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

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

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
(4) The permittee complied with any remedial measures required under B.3. above.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.

d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.

e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by

imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The permittee shall allow the Regional Administrator or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. Planned Changes. The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
(2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Anticipated noncompliance. The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Transfers. This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

(2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. Twenty-four hour reporting.

(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
(b) Any upset which exceeds any effluent limitation in the permit.
(c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)

(3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.

h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and Federal standards and limitations to which a “discharge”, a “sewage sludge use or disposal practice”, or a related activity is subject to, including “effluent limitations”, water quality standards, standards of performance, toxic effluent standards or prohibitions, “best management practices”, pretreatment standards, and “standards for sewage sludge use and disposal” under Sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in "approved States", including any approved modifications or revisions.

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" measured during the calendar week divided by the number of "daily discharges" measured during the week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

(a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.

(c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

(d) Final Stabilization means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

(e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

Daily Discharge means the discharge of a pollutant measured during the calendar day or any other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

Discharge Monitoring Report Form (DMR) means the EPA standard national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source", or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation (See "Point Source" definition).

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include an addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Regional Administrator on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States", the waters of the "contiguous zone", or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under Section 304(b) of CWA to adopt or revise "effluent limitations".

EPA means the United States "Environmental Protection Agency".

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample – An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(b) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act (CWA), the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable "daily discharge" concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as "maximum concentration" or "Instantaneous Maximum Concentration" during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean "a value that shall not be exceeded" during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of "Maximum Daily Discharge" and "Average Daily Discharge" concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program".

New Discharger means any building, structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants";

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source"; and

(d) Which has never received a finally effective NPDES permit for discharges at that "site".

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore rig or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR §§125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants", the construction of which commenced:

(a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System".

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

Pass through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved" State.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (Natural Resources Defense Council et al. v. Train, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 CFR Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operation is not the operator of the treatment works or (b) not a "POTW".

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary Industry Category means any industry which is not a "primary industry category".

Section 313 water priority chemical means a chemical or chemical category which:

(1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);

(2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and

(3) satisfies at least one of the following criteria:

(i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
(ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
(iii) are pollutants for which EPA has published acute or chronic water quality criteria.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR §110.10 and §117.21) or Section 102 of CERCLA (see 40 CFR § 302.4).

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

Toxic pollutants means any pollutant listed as toxic under Section 307 (a)(1) or, in the case of "sludge use or disposal practices" any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a "treatment works treating domestic sewage", where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

Waste Pile means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;

(b) All interstate waters, including interstate "wetlands";

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

(1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and

(2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in the ground water to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2,

classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Industrial wastewater is wastewater generated in a commercial or industrial process.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

Municipality means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management agency under section 208 of the CWA, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination or organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to:, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl_2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH_3-N	Ammonia nitrogen as nitrogen
NO_3-N	Nitrate as nitrogen
NO_2-N	Nitrite as nitrogen
NO_3-NO_2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
ug/l	Microgram(s) per liter
WET	"Whole effluent toxicity" is the total effect of an effluent measured directly with a toxicity test.
C-NOEC	"Chronic (Long-term Exposure Test) – No Observed Effect Concentration". The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.
A-NOEC	"Acute (Short-term Exposure Test) – No Observed Effect Concentration" (see C-NOEC definition).
LC_{50}	LC_{50} is the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.
ZID	Zone of Initial Dilution means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION 1
5 POST OFFICE SQUARE, SUITE 100 BOSTON, MASSACHUSETTS 02109-3912

STATEMENT OF BASIS FOR:

Draft Modification to National Pollutant Discharge Elimination System (NPDES) Permit to Discharge to Waters of the United States Pursuant to the Clean Water Act

NPDES PERMIT NUMBER:

MA0040304

PUBLIC NOTICE START AND END DATES:

April 9, 2018 – May 8, 2018

NAME AND MAILING ADDRESS OF APPLICANT:

University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125

RECEIVING WATER(S) and SOURCE WATER FOR COOLING WATER WITHDRAWALS:

Dorchester Bay
(MA70-03)

RECEIVING WATER CLASSIFICATION(S):

Class SB -Warm water fishery

SIC CODE(S): 8221

CURRENT PERMIT - ISSUED: February 7, 2013

CURRENT PERMIT – EFFECTIVE: September 1, 2013

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I. Introduction

The United States Environmental Protection Agency's ("EPA") Region 1 office ("Region 1" or the "Region") and the Massachusetts Department of Environmental Protection ("MassDEP") (collectively, the "Regulatory Agencies") are proposing a modification to the current National Pollutant Discharge Elimination System permit ("NPDES Permit" or "Final Permit") for University of Massachusetts Boston ("UMB" or the "Permittee") in Boston, MA (the "Facility"). The Region originally issued the Final Permit in February 2013. Because UMB appealed the NPDES Permit to EPA's Environmental Appeals Board ("EAB") in Washington, D.C., however, the permit did not take effect until September 1, 2013, after the EPA and UMB reached a settlement of the permit appeal that included an EPA-issued Administrative Order on Consent ("Order"). Among other things, the Order provided a schedule for the Permittee to install certain equipment to come into compliance with the Final Permit and allowed the Permittee additional time to evaluate certain other issues, which are discussed more fully below. The Order became effective on September 6, 2013.

On July 31, 2017, the Region received a request from the Permittee for modification of its NPDES Permit pursuant to 40 C.F.R. § 122.62. More specifically, the Permittee requested a modification of the condition at Part I.D.1.c of the NPDES Permit related to the configuration of the fish return trough based on a study that provides new information to the Regulatory Agencies that was not available at the time of permit issuance. As described in more detail below, EPA is proposing modifications in the Final Permit based on the results of that study. For the reader's convenience, EPA has indicated the proposed modifications in the Draft Permit Modification by underlining text proposed for addition to the Final Permit and striking through text proposed for deletion from the Final Permit. The Regulatory Agencies are seeking, and will accept, only comments that address the proposed modifications, as designated in the Draft Permit Modification and discussed in Section III of this Statement of Basis. All other aspects of the existing permit will remain in effect for the duration of the unmodified permit and are not being reopened. *See* 40 C.F.R. § 124.5(c)(2).

II. Background

A. The Facility

UMB is a public institute of education with a campus located on Columbia Point in Boston, Massachusetts. UMB operates a non-contact cooling water (NCCW) system to meet the campus's cooling needs. The NCCW system withdraws seawater from Savin Hill Cove through a cooling water intake structure (CWIS) to a pump house. Heat exchangers located in the pump house use this seawater to cool the condenser loop after which the heated NCCW is discharged to Dorchester Bay.

The facts concerning the Facility and the waterbody that are relevant for the purpose of NPDES permitting are discussed in detail in the Fact Sheet that EPA issued in 2012 together with the draft NPDES permit for the Facility (the Fact Sheet and the Draft

Permit, respectively), the Responses to Comments issued by EPA in conjunction with the 2013 Final Permit (the RTC and the Final Permit, respectively), the 2013 Findings and Consented to Order for Compliance (the Order), quarterly compliance reports submitted under Part V. of the Order, and biological monitoring reports submitted in compliance with Part I.E.3 of the Final Permit. These documents are incorporated herein by reference for purposes of providing additional background information concerning the Facility, the Final Permit, the Order, and the relevant law.

B. The Final Permit and Permit Appeal

In the Fact Sheet accompanying the issuance of the Draft Permit for UMB, EPA concluded that the existing traveling screen and fish return are not the best technology available (BTA) for minimizing adverse environmental impacts associated with impingement consistent with Section 316(b) of the CWA. This determination was made considering infrequent rotation of the traveling screen, a through-screen velocity higher than recommended to minimize impingement, and a fish return trough that combines screen wash with the heated NCCW discharge and which returns fish to a location that is not submerged at all tidal stages. *See* Fact Sheet at 22. To minimize the adverse environmental impact from impingement associated with the facility's CWIS, Part I.D of the Final Permit required the permittee to install variable frequency drives (VFDs) on at least two of the salt water pumps, limit the maximum through-screen velocity to no more than 0.5 feet per second (fps), and rotate the traveling screens at the maximum rotation frequency recommended by the manufacturer. *See* Final Permit at Part I.D.1.a.ii. and I.D.1.b. EPA issued the Final Permit prior to the 2014 promulgation of regulations establishing requirements for cooling water intake structures at existing facilities. *See* 40 C.F.R. Part 125, subpart J. Consequently, EPA developed the impingement requirements in the permit by applying § 316(b) on a site-specific basis using Best Professional Judgment ("BPJ"). *See* Fact Sheet at 13.

The Regulatory Agencies issued the Final Permit for the Facility on February 7, 2013. Although the Final Permit was to become effective May 1, 2013, UMB's appeal of various conditions automatically stayed the permit. *See* 40 C.F.R. § 124.16. The Regulatory Agencies and UMB (collectively, the Parties) then began settlement negotiations. The Parties ultimately resolved the appeal by agreeing that certain provisions in the Final Permit that had been challenged would be clarified in a letter from EPA to UMB and that other issues would be addressed via an Order. On August 21, 2013, EPA issued a letter to UMB clarifying permit language in Part I.D.1.a (timing of a supplemental cooling tower) and I.E.4 (monitoring and cleaning of the intake screen). Shortly thereafter, the parties executed the Order, which established a compliance schedule for UMB to install and commence operation of the VFDs in compliance with conditions at Part I.D of the Final Permit and to evaluate the feasibility of complying with the conditions at Part I.D.1.c of the Final Permit related to construction of a new fish return trough. Pursuant to Part IV.1.a of the Order, UMB completed installation of VFDs on two of the pumps by June 30, 2014. *See* UMB's 2014 Second Quarter Compliance Report dated July 23, 2014. The installation of the VFDs is consistent with the effluent limits at Part I.A.1 and conditions in Part I.D.1.a of the Final Permit.

The compliance schedule allowed UMB to conduct two years of impingement monitoring, to study the feasibility of installing a new trough that met all the requirements of Part I.D.1.c of the Final Permit, and to assess the impact of alternative configurations of the fish return trough, including the existing configuration, on the survival of impinged fish or other organisms. *See* Order, Attachment A. After completion of the study and biological monitoring, the Permittee was required to either 1) provide a proposed design and schedule for construction of a new fish return trough or, 2) request modification of the permit condition and explain why it is not feasible to construct and operate a fish return trough in compliance with Part I.D.1.c of the Final Permit. *See* Order at Part IV.1.b.ii.2.

UMB completed the study and on July 31, 2017, submitted to EPA its Fish Return Feasibility and Impact Assessment (the Report), which evaluates potential fish return system alternatives and a supporting Impingement Mortality Assessment with results from two years of impingement sampling (the Impingement Report). *See* Part IV.1.b.i.3 of the Order. The Report, based in part on the results of the Impingement Report, concludes that a new fish return is not warranted. UMB has requested that the Final Permit be modified and has provided in the Report an assessment explaining the bases for its conclusion. *See* July 31, 2017 letter from UMB to EPA and MassDEP. This Statement of Basis serves as EPA's review of the Report and its determination regarding UMB's request for permit modification.

III. Proposed Modifications to Part I.D of the Permit

As described above, for the Draft and Final Permits, the Regulatory Agencies concluded, based on the available information, that the existing fish return trough was not adequately protective to ensure safe transport and return of fish to the receiving water. In particular, the Regulatory Agencies noted that use of VFDs will result in a higher rise in discharge temperature, at times resulting in a difference in temperature between the intake and the discharge as high as 12°F, and that organisms may be harmed by the exposure to a sudden increase in temperature during transport back to the receiving water in the same pipe as the NCCW. In addition, the agencies noted that the combined screen wash and heated NCCW outfall is not submerged at all tidal stages. *See* Fact Sheet at 22. *See also* Response to Comment at 3-4. To minimize adverse environmental impacts from the existing fish return, Part I.D.1.c of the Final Permit requires that the Permittee:

> Install and operate a new fish return trough that transports impinged fish and other aquatic organisms to Dorchester Bay in a separate trough from the non-contact cooling water discharge pipe. The new fish return trough shall avoid vertical drops and sharp turns or angles. The end of the new fish return trough shall be submerged at all times when the traveling screen is rotated at a location that minimizes the potential for re-impingement.

During the permit appeal, UMB questioned whether a new trough would be feasible and requested that the permit condition at Part I.D.1.c be stayed to allow the permittee to investigate the feasibility, cost, and effectiveness of constructing a new fish return. UMB also questioned the basis for the Regulatory Agencies' decision to require a new fish return trough. As stated above, UMB completed two years of impingement monitoring and a fish return feasibility and impact assessment following permit issuance. The impingement monitoring and fish return study includes an assessment of the potential impacts of exposing fish to the expected worst-case temperature rise (12.5°F) for the duration of transport through the current fish return and an evaluation of the feasibility of constructing a new return at the site. UMB has opted to request a modification of the permit condition on the grounds that the new data from the two years of impingement monitoring show that a new fish return system is not warranted because the existing system, with minor improvements, is sufficiently protective of impinged fish. UMB also identified potential negative impacts of requiring a new fish return trough, including ecological impacts resulting from construction and financial impacts of requiring a capital improvement that, in its estimation, does not generate significant improvements in impingement survival.

In the Report and the permit modification request, UMB proposes to use water level sensors that will only allow rotation of the traveling screens when the water level at the discharge is greater than 2.5 ft above mean sea level, in order to ensure that the outlet of the fish return is submerged whenever fish may be returned to the water body via the existing trough. This operational improvement to the existing system will ensure that UMB complies with Part I.D.1.c of the Final Permit requiring that the return trough be "submerged at all times when the traveling screen is rotated," without requiring construction of a new return. Tying these sensors to the VFD controls will also provide an accurate measurement of the intake velocity and assist with ensuring compliance with Part I.D.1.a(ii), which requires the permittee to limit the through-screen velocity to no more than 0.5 fps. The existing return also avoids sharp turns and vertical drops, which satisfies that aspect of the requirements at Part I.D.1.c without the need for a new trough.

The remaining issue concerns the effect of exposing fish to a sudden rise in temperature. In the Fact Sheet for the Draft Permit, EPA proposed pursuant to BPJ that the then-existing technology at the facility was not the best technology available for minimizing impingement, in part because "the fish return system discharges live organisms and debris into the same pipe as the heated effluent." Fact Sheet at 22. The Region noted that exposure to elevated water temperature in the existing fish return configuration may be harmful and concluded that a new, separate fish return would likely improve survival of impinged organisms. *Id.* at 27; Response to Comments [hereinafter "RTC"] at 3.

During its study, UMB assessed the potential thermal impacts of subjecting impinged fish to the sudden rise in water temperature and the time period of elevated temperature that they would experience while transiting the existing fish return system. The study assessed this impact by holding fish collected during impingement sampling for 13 minutes in a bucket of bay water that had been heated to a temperature 12.5°F greater than the intake temperature, thereby simulating the maximum rise in temperature and the travel time

through the fish trough to the receiving water. After this exposure, fish were then transferred to a tank with continuously running, unheated bay water and held for 96 hours to assess the latent effects of impingement and exposure to heated effluent. The three most abundant species in impingement sampling during 2015 and 2016 were winter flounder (81%), grubby (9.5%), and striped killifish (2.9%). Winter flounder experienced an initial survival rate of 92% and a latent (96-hour) survival rate of 85%. Grubby experienced an initial survival rate of 95% and latent survival rate of 87%. Striped killifish experienced an initial survival rate of 100% and latent survival rate of 95%. The Impingement Report demonstrates that, on average, 85% of fish are expected to survive impingement and exposure to the worst-case rise in temperature in the existing fish return trough. The survival rates of impinged fish at UMB are consistent with survival of similarly robust species impinged and not subjected to additional heated effluent at other traveling screens and in laboratory studies. *See* EPRI 2013.[1]

When EPA receives a request for modification of an existing permit, EPA may only modify the permit if cause exists under the NPDES permitting regulations. *See* 40 C.F.R. § 122.62. Moreover, when a permit is modified, only the conditions subject to modification are reopened. *Id.* In this case, UMB has requested modification of Part I.D.1.c of the Final Permit only (relating to the configuration of the fish trough) based on the Report and the supporting two-year impingement monitoring submitted with the request. NPDES permitting regulations provide several bases under which EPA may modify an existing permit, including when it has received new information. EPA may only modify a permit on this basis, however, if the information was not available at the time the permit was issued, but, had it been, would have "justified the application of different permit conditions at the time of issuance." *Id.* § 122.62(a)(2). In other words, EPA may modify an existing permit if the new information would have justified the application of different permit conditions "under the regulatory requirements that were applicable at the time of permit issuance." 45 FR 33,290 at 33,315 (May 19, 1980). Below, EPA evaluates the modification request on the basis of new information.[2]

At the time of permit issuance, the existing regulatory regime in place for NPDES permits involving CWISs required EPA to develop site-specific impingement mortality requirements on a case-by-case BPJ basis. 40 C.F.R. § 125.90(b); 72 Fed. Reg. 37,107 at 37,108 (July 9, 2007) (suspending previous regulations applicable to certain CWISs except section 125.90(b), which directs permitting authorities to establish section 316(b) requirements on a BPJ basis for existing facilities not subject to categorical section 316(b) regulation); *see also* 40 C.F.R. § 125.94(a)(2). EPA concluded pursuant to BPJ

[1] Electric Power Research Institute. 2013. Fish Protection at Cooling Water Intake Structures. A Technical Reference Manual – 2012 Update. Palo Alto, CA. 3002000231.

[2] Under certain circumstances, EPA may also modify a permit on the basis of new regulations. *See* 40 C.F.R. § 122.62(a)(3)(i). This cause is not applicable here, because the conditions for its application are not met. *See id.* Accordingly, in light of section 122.62(a)(2), EPA evaluates the modification request under the CWIS regulations in place at the time of permit issuance in 2013, rather than the later amended regulations. EPA observes, however, that UMB's system, as proposed in the modification request, would not be inconsistent with the impingement mortality standards in the amended regulations. *See e.g., id.* § 125.94(c)(3).

that both closed-cycle cooling and VFDs were available technologies that would reduce impingement at UMB, but rejected closed-cycle cooling as the BTA at UMB based on cost, non-water quality impacts (in particular, increased noise), and other issues. Fact Sheet at 25-30. With respect to VFDs, EPA concluded that "operating VFDs to maintain a TSV of 0.5 fps or less, which is consistent with the recommended TSV for protection of adult and juvenile fish from impingement, will likely allow most fish to avoid becoming impinged." *Id.* at 27. While the information available at the time of permit issuance included impingement data for the facility, it did not include a site-specific assessment of impingement mortality or site-specific data assessing the impact of sudden exposure of impinged fish to UMB's heated effluent as they transited the effluent pipe and were returned to Dorchester Bay, because no such data existed. Based on the information available to it at the time, EPA concluded that "the sudden rise in temperature may be harmful to a fish transported from the traveling screen to the receiving water via the discharge pipe" and that a separate fish trough would "maximize[] the potential for safe return of fish to the receiving water." RTC at 3. EPA also stated that combining the operation of VFDs with improvements to the existing fish return, including "establishing a new, dedicated fish return system to transport impinged organisms from the traveling screen back to the receiving water," would likely further reduce impingement mortality. Fact Sheet at 27.

UMB's impingement study includes a new site-specific assessment of impacts to fish impinged and then exposed to heated water in the return trough. The study indicates that survival under these conditions is relatively high (85% or greater). Furthermore, the proposed improvements to the timing of rotation will ensure that the outfall is submerged at all times when the traveling screen is rotated. Moreover, the installation and operation of VFDs on all of the circulating water pumps, which enables the permittee to maintain a through-screen velocity of no more than 0.5 fps, minimizes impingement of fish. The overall reduction in impingement as a result of the low through-screen velocity, combined with the relatively high survival of individuals that are impinged, indicates that the existing fish return trough effectively ensures survival and return of impinged fish to the receiving water. The cost of a new fish return trough (ranging from $315,000 to $565,000), coupled with the disturbance to the habitat during construction, is not warranted by any relatively small incremental improvement in survival that may be achieved by separating the fish return trough and the discharge pipe. For these reasons, the Regulatory Agencies propose to find that the site-specific data provided by UMB represent new information that was not available at the time of permit issuance, but that, had it been, it would have justified a different permit condition under the then-applicable regulatory requirements that did not require the fish return system to be separated from the heated effluent discharge.[3] The Regulatory Agencies also support UMB's proposal to install water level sensors, as described in the Report, to ensure that the outfall is submerged whenever the traveling screens are rotated, accurately measure through-screen

[3] EPA has determined that anti-backsliding is not applicable here, because the modified condition will not be any less stringent than the condition in the previous permit. *See* 40 C.F.R. § 122.44(*l*)(1). Even if it were, however, the study and supporting data submitted by UMB would satisfy the anti-backsliding exception for new information. *See id.* § 122.44(*l*)(2)(i)(B)(1).

velocity, and ensure that the temperature of the discharge does not exceed 12°F above the ambient water temperature.
Thus, pursuant to 40 C.F.R. § 122.62(a)(2), the Regulatory Agencies are proposing modifications to Part I.D.1.c of the Final Permit to amend the requirements for UMB's fish return trough, as follows :

> ~~Install and o~~Operate a ~~new~~ fish return trough that transports impinged fish and other aquatic organisms to Dorchester Bay ~~in a separate trough from the non-contact cooling water discharge pipe. The new fish return trough shall~~ avoiding vertical drops and sharp turns or angles. The end of the ~~new~~ fish return trough shall be submerged at all times when the traveling screen is rotated at a location that minimizes the potential for re-impingement.

See also Order at Part IV.1.b.i.

IV. Endangered Species Act (ESA)

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA), grants authority to, and imposes requirements on, Federal agencies regarding the conservation of endangered and threatened species of fish, wildlife, and plants ("listed species"), and the habitat of such species that has been designated as critical ("critical habitat").

Section 7(a)(2) of the ESA requires every Federal agency, in consultation with and with the assurance of the Secretary of Interior, to ensure 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 § 7 consultations for freshwater species. The National Marine Fisheries Service (NMFS) administers § 7 consultations for marine species and anadromous fish.

EPA has reviewed the listing of federal endangered or threatened species of fish, wildlife, and plants to see if any such listed species might potentially be impacted by the proposed modifications to the Final Permit. Impingement monitoring conducted from May 2015 through April 2017 did not collect a single federally listed species. Massachusetts Bay and associated bays and estuaries are within the range of several listed species, including Atlantic sturgeon (subadult and adult life stages), North Atlantic right whale, fin whale, and sea turtles.[4] However, the very limited depth at the CWIS makes it highly unlikely that any of these species would be present at the intake. In addition, critical habitat for the North Atlantic right whale does not include inshore areas, harbors, or inlets, which would exclude Savin Hill Cove. Upon review of the current endangered and threatened species in the area, EPA has determined that, at this time, there are no federally threatened or endangered species or designated critical habitat present in the vicinity of the outfalls from

[4] ESA Listed Species Maps and Tables available at https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/index.html (last accessed January 31, 2018).

this facility.

In an email exchange between Danielle Gaito (EPA) and Christine Vaccaro (NMFS), NMFS agreed that further consultation for this Draft Permit Modification under Section 7 of the ESA is not required. *See* November 17, 2017 email. If new information becomes available that changes the basis for this determination, then NMFS will be notified and consultation will be promptly initiated. During the public comment period, EPA has provided a copy of the Draft Permit Modification and Statement of Basis to both NMFS and USFWS.

V. Essential Fish Habitat (EFH)

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 affect 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." *Id.* § 1802(10). "Adverse effect" means any impact that 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. *Id.*

EFH is only designated for species for which federal fisheries management plans exist. *See* 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. The following is a list of the EFH species and applicable life stage(s) for Dorchester Bay:

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod *(Gadus morhua)*	X	X	X	X
haddock *(Melanogrammus aeglefinus)*	X	X		
pollock *(Pollachius virens)*	X	X	X	X
whiting *(Merluccius bilinearis)*	X	X	X	X
red hake *(Urophycis chuss)*	X	X	X	X
white hake *(Urophycis tenuis)*	X	X	X	X
winter flounder *(Pseudopleuronectes americanus)*	X	X	X	X
yellowtail flounder *(Limanda ferruginea)*	X	X	X	X

windowpane flounder *(Scophthalmus aquosus)*	X	X	X	X
American plaice *(Hippoglossoides platessoides)*	X	X	X	X
ocean pout *(Macrozoarces americanus)*	X	X	X	X
Atlantic halibut *(Hippoglossus hippoglossus)*	X	X	X	X
Atlantic sea scallop *(Placopecten magellanicus)*	X	X	X	X
Atlantic sea herring *(Clupea harengus)*		X	X	X
bluefish *(Pomatomus saltatrix)*			X	X
long finned squid *(Loligo pealeii)*	n/a	n/a	X	X
short finned squid *(Illex illecebrosus)*	n/a	n/a	X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralichthys dentatus)*				X
scup *(Stenotomus chrysops)*	n/a	n/a	X	X
black sea bass *(Centropristis striata)*	n/a		X	X
surf clam *(Spisula solidissima)*	n/a	n/a	X	X
bluefin tuna *(Thunnus thynnus)*			X	X

Five of the species with designated EFH in Dorchester Bay were impinged during the 2015 and 2016 impingement study: Atlantic cod, winter flounder, windowpane flounder, Atlantic herring, and bluefish. Thus, while operation of this facility's CWIS is not likely to affect the habitat directly, it does have the potential to affect EFH species in Dorchester Bay. With the exception of winter flounder, the remaining species were impinged in relatively low numbers during a single event (for windowpane, Atlantic herring, and bluefish) or over three samples in a single month (for Atlantic cod). Winter flounder are impinged in the highest abundance at UMB, with an estimated total impingement of 4,143 fish in 2015 and 1,406 fish in 2016. Winter flounder also experience relatively high survival through the existing fish return, with more than 7,000 of the 8,249 impinged over the two years likely to survive. Based on the available information, EPA has concluded that proposed permit modification to allow UMB to continue to use its existing fish return will minimize adverse effects to EFH and managed species.

EPA believes the draft permit modification will protect all aquatic life and habitat in Dorchester Bay, including designated EFH. Therefore, additional mitigation is not

warranted. If adverse impacts to EFH are detected as a result of this permit modification, or if new information is received that changes the basis for our conclusion, NMFS will be notified and an EFH consultation will be initiated. During the public comment period, EPA has provided a copy of the draft permit modification and Statement of Basis to both NMFS and USFWS.

VI. State Certification Requirements

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving waters certifies that the effluent limitations contained in the Draft Permit Modification are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or it is deemed that the state has waived its right to certify. Regulations governing state certification are set forth in 40 C.F.R. § 124.53 and § 124.55.

During development of this permit modification MassDEP has communicated to EPA, however, that it intends to include a requirement for visual inspection of the intake structure in the state certification. The surface water quality standards at 314 CMR 4.05(4)(b)(2)(d) state that in the case of a CWIS regulated by EPA, MassDEP has the authority "to condition the CWIS to assure compliance of the withdrawal activity with 314 CMR 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses." According to MassDEP, the CWIS has the potential to impact the Aquatic Life Use of Dorchester Bay (a Class SB water), including habitat for benthic fish such as winter flounder. UMB's CWIS is designed with a baffle wall that extends 5 feet above the bottom of the intake tunnel to prevent winter flounder from entering the intake. *See* UMB Feasibility Report at 5. Sediment build-up at this baffle could reduce the ability of the CWIS to function as designed, including preventing entry of benthic organisms to the CWIS. MassDEP is not aware of any inspections of the CWIS and has no information on whether sediment build-up is interfering with the function of the baffle to prevent entry of benthic organisms. Therefore, MassDEP has proposed a state permit condition requiring the permittee to conduct annual visual inspections of the intake structure by deploying divers to inspect and photograph the intake beginning in calendar year 2018 and continuing while the Modified Permit remains in effect (*i.e.*, until a new NPDES permit is reissued and takes effect). The proposed condition further requires the permittee to provide MassDEP with a report summarizing the condition of the intake, including photographs, within sixty days of the inspection. EPA has included the state's requirement as Part I.G.5 of the Draft Permit Modification.

The staff of the Massachusetts Department of Environmental Protection has reviewed the Draft Permit Modification and the Statement of Basis and advised EPA that the proposed limitations, with the inclusion of the state requirement described above, are consistent with water quality standards pertaining to cooling water intake structures, including 314 CMR 4.05(4)(b)(2)(d). EPA has requested certification by the State pursuant to 40 C.F.R. § 124.53 and expects that the permit modification will be certified.

If the State believes that any conditions more stringent than those contained in the Draft Permit Modification are necessary to meet the requirements of either the CWA §§ 208(e), 301, 302, 303, 306 and 307, and with appropriate requirements of State law, the State should include such conditions and, in each case, cite the CWA or State law reference upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition. Reviews and appeals of limitations and conditions attributable to State Certification shall be made through the applicable procedures of the State and may not be made through the applicable procedures of 40 C.F.R. Part 124.

In addition, the State should provide a statement of the extent to which any condition of the Draft Permit Modification can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition.

It should be noted that under CWA § 401, EPA's duty to defer to considerations of state law is intended to prevent EPA from relaxing any requirements, limitations or conditions imposed by state law. Therefore, "[a] State may not condition or deny a certification on the grounds that State law allows a less stringent permit condition." *See* 40 C.F.R. § 124.55(c). In such an instance, the regulation provides that, "The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification." *Id.* EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. § 122.4(d) and 40 C.F.R. § 122.44(d).

VII. Administrative Record, Public Comment Period, Hearing Requests, and Procedures for Final Decision

All persons, including applicants, who believe any condition of the Draft Permit Modification 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 Danielle Gaito, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109-3912 or via email to gaito.danielle@epa.gov.

Any person, prior to the close of the public comment period, may submit a request in writing for a public hearing to consider the Draft Permit Modification 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 Modification, 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 Modification decision, forward a

copy of the final modification to the applicant, and provide a copy or notice of availability of the final modification to each person who has submitted written comments or requested notice. Within 30 days following the notice of the Final Permit Modification, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 C.F.R. § 124.19 and/or submit a request for an adjudicatory hearing to MassDEP's Office of Appeals and Dispute Resolution consistent with 310 CMR 1.00.

VIII. EPA & MassDEP Contacts

The administrative record on which this Draft Permit Modification is based may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

Danielle Gaito, EPA New England – Region 1
5 Post Office Square, Suite 100 (OEP06-4)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1297 FAX: (617) 918-0297
email: gaito.danielle@epa.gov

Catherine Vakalopoulos, Massachusetts Department of Environmental Protection
Wastewater Management Program
1 Winter Street
Boston, Massachusetts 02108
Telephone: (617) 348-4026 FAX: (617) 292-5696
email: catherine.vakalopoulos@state.ma.us

April 5, 2018
Date

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMONWEALTH OF MASSACHUSETTS
1 WINTER STREET
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT MODIFICATION TO DISCHARGE INTO THE WATERS OF THE UNITED STATES UNDER SECTION 301, 316(A), AND 402 OF THE CLEAN WATER ACT, AS AMENDED, AND UNDER SECTIONS 27 AND 43 OF THE MASSACHUSETTS CLEAN WATERS ACT, AS AMENDED, AND REQUEST FOR STATE CERTIFICATION UNDER SECTION 401 OF THE CLEAN WATER ACT.

DATE OF PUBLIC COMMENT PERIOD: April 9, 2018 – May 8, 2018

PERMIT NUMBER: **MA0040304**

PUBLIC NOTICE NUMBER: MA-013-18

NAME AND MAILING ADDRESS OF PERMITTEE:

Ms. Zehra Schneider Graham
Deputy Director of Environmental Health and Safety
University of Massachusetts, Boston
100 Morrissey Boulevard
Boston, MA 02125

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

University of Massachusetts, Boston
100 Morrissey Boulevard
Boston, MA 02125

RECEIVING WATER(S): Dorchester Bay

RECEIVING WATER(S) CLASSIFICATION(S): Class SB

PREPARATION OF THE DRAFT PERMIT MODIFICATION:

The U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) have cooperated in the development of a draft permit modification for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure compliance with the Clean Water Act, 33 U.S.C. sections 1251 et seq.,, the Massachusetts Clean Waters Act, G.L. c. 21, §§ 26-53, 314 CMR 3.00 and State Surface Water Quality Standards at 314 CMR 4.00. EPA has formally requested that the State certify this draft permit pursuant to Section 401 of the Clean Water Act and expects that the draft permit will be certified.

INFORMATION ABOUT THE DRAFT PERMIT:

A statement of basis (describing the type of facility; permitting history; a brief summary of the basis for the draft permit modification; and significant factual, legal and policy questions considered in preparing this draft permit modification) and the draft permit modification may be obtained at no cost at https://www.epa.gov/npdes-permits/massachusetts-draft-individual-npdes-permits or by writing or calling EPA's contact person named below:

Danielle Gaito
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (OEP06-4)
Boston, MA 02109-3912
Telephone: (617) 918-1297

The administrative record containing all documents relating to this draft permit modification is on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit modification is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by May 8, 2018, to the U.S. EPA, Danielle Gaito, 5 Post Office Square, Suite 100, Mailcode OEP06-4, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing to EPA and the State Agency for a public hearing to consider this draft permit modification. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on this draft permit modification, the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator 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 thirty days following the notice of the final permit decision any interested person may submit a petition to the Environmental Appeals Board to reconsider or contest the final decision.

LEALDON LANGLEY, DIRECTOR
MASSACHUSETTS WETLANDS AND WASTEWATER PROGRAMS
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

KEN MORAFF, DIRECTOR
OFFICE OF ECOSYSTEM PROTECTION
ENVIRONMENTAL PROTECTION AGENCY – REGION 1