

**FINAL 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 Water Act, as amended, (M.G.L. Chap. 21, §§ 26-53)

**Brayton Point Energy, LLC
One Brayton Road
Somerset, MA 02725**

is authorized to discharge from the facility located at

**Brayton Point Station
One Brayton Point Road
Somerset, MA 02725**

into receiving water named

Mount Hope Bay (Mount Hope Bay Basin, MA61-06, 61-07)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued February 29, 2012, except as listed:

Part I.A.2.a (footnote 1), Outfall 003 – Cooling Tower Blowdown
Part I.A.24.a, Biological and Hydrological Monitoring

which has been modified as shown in strikethrough and italics on pages 4, 13, 14 and 15.

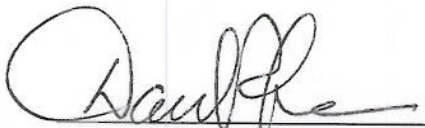
This permit modification shall become effective 60 days after signature.

This permit modification does not affect the expiration date of the permit signed February 29, 2012. The original permit stated, "This permit shall become effective on May 13, 2012. This permit and the authorization to discharge expire at midnight, five (5) years from the effective date." Therefore, the original permit and this permit modification expire May 13, 2017.

Signed this 2nd day of September, 2014



Ken Moraff, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I



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

Part I.

A. Effluent Limitations, Conditions, and Monitoring Requirements

1. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge process water from **outfall serial number 001: the combined flow from internal outfall serial numbers 003, 004 and 005.**

- a. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Ave. Monthly	Max. Daily	Measurement Frequency	Sample Type
Flow Rate, MGD Effluent	72	74	Continuous	Recorder ¹
Flow Rate, MGD, Influent ²	70	70	Continuous	Recorder ¹
Temperature, °F ³	Report	95	Continuous	Recorder
Total Residual Oxidant (TRO) ⁴ , mg/l	0.0375	0.065	Daily ⁴	Grab ⁴
pH, s.u.	6.5 - 8.5 ⁵		Weekly	Grab
Spectrus CT1300, ppm ⁶	---	0.20	Daily (When in Use)	Grab
Copper, mg/l	0.0162	0.025	Weekly	Grab
Whole Effluent Toxicity ^{7, 8}	---	Report	Quarterly	24 hour Composite ⁹
LC50 (%)	---	Report	"	"
A-NOEC (%)	---	Report	"	"
Ammonia (mg/l)	---	Report	"	"
Hardness (mg/l)	---	Report	"	"
Total Organic Carbon (mg/l)	---	Report	"	"
Total Aluminum (mg/l)	---	Report	"	"
Total Chromium (mg/l)	---	Report	"	"
Total Cadmium (mg/l)	---	Report	"	"
Total Copper (mg/l)	---	Report	"	"
Total Lead (mg/l)	---	Report	"	"
Total Nickel (mg/l)	---	Report	"	"
Total Zinc (mg/l)	---	Report	"	"

¹The flow rate may be recorded using flow meters or estimated from pump capacity curves. The discharge flow rate is the total blowdown from cooling tower(s) plus flow from the wastewater treatment facility (including flow from metal cleaning operations).

²The influent flow shall be the total flow of cooling water withdrawn from the Taunton River intake structure.

³The discharge temperature shall be monitored approximately in the center of the discharge canal at the venturi. The hourly average discharge temperature shall not exceed 95 °F.

⁴The TRO concentration shall not exceed 0.065 mg/l as an "instantaneous maximum concentration" at the point of discharge into Mount Hope Bay. Samples shall be collected daily when chlorine is in use.

Total Residual Oxidants shall be measured using EPA approved method(s), 40 CFR Part 136, Table 1B.

For this permit, the Minimum Level (ML) for TRO has been defined as 0.02 mg/l and that value may be reduced as more sensitive test methods are approved by the EPA and the State. For any value below the ML of 0.02, the permittee shall use zero in the calculation of the monthly average TRO value.

⁵The pH shall be in the range of 6.5 through 8.5 standard units and not more than 0.2 units outside of the natural background range.

⁶See Part I.A.7 of this permit for Spectrus CT1300 use requirements. The grab sample shall be taken after Spectrus CT1300 has been applied in the service water system for at least 4 hours. Only one grab sample per use of Spectrus CT1300 is required. The permittee shall use GE Betz's AP412 Methyl Orange Method to determine the outlet concentration.

⁷The permittee is required to report the results of chronic (and modified acute) WET tests using Inland Silverside (Menidia beryllina), acute WET tests using Mysid Shrimp (Mysidopsis bahia) and chronic Sea Urchin (Arbacia punctulata) WET tests on a quarterly basis. A 24-Hour composite sample is the required "sample type" for WET testing. If after eight consecutive sampling periods (two years of closed cycle operation), no test shows a $LC_{50} < 100\%$ and a $C-NOEC < 20\%$, the permittee may request a reduction in toxicity testing to twice per year. The permittee shall use the procedures and protocols contained in Attachment B to this permit when conducting the WET testing.

⁸At least one test per year shall be conducted during metal cleaning, if possible (i.e., during reduced operations including shutdown). The other three tests shall be conducted during normal operation. The permittee shall document and submit to EPA and MassDEP the operating conditions occurring during each WET test.

⁹Composite samples shall be comprised of at least 24 flow-weighted individual samples taken hourly over one 24 hour period (a full operational day, for example 7:00 am Monday through 7:00 am Tuesday).

2. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge from **internal outfall serial number 003: Cooling Tower Blowdown**.

- a. Internal outfall 003 shall be monitored at a location that is representative of cooling tower blowdown (from one of the two blowdown pipes, except flow which shall be the combined total from the two blowdown pipes) and prior to mixing with any other wastewater stream. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Ave. Daily	Max. Daily	Ave. Monthly	Monthly Total	Measurement Frequency	Sample Type
Flow, MGD	---	70	Report	---	Daily	Recorder ¹
Discharge Temperature ² , °F	Report	---	---	---	Continuous	Recorder ²
Intake Temperature ² , °F	Report	---	---	---	Continuous	Recorder ²
Temperature Difference ³ , (ΔT) °F	Report	---	---	---	Daily	Calculation ³
Heat Load, BTU ⁴	Report	---	---	Report	Daily	Calculation ⁴
Free Available Chlorine (FAC), mg/l	0.2 ⁵	0.5 ⁵	---	---	Daily	Grab
126 priority pollutants	---	0 ⁶	0 ⁶	---	Yearly	Grab or Calculation ⁶

¹The flow rate may be recorded using flow meters. Flow will be reported as the combined value from the two blowdown pipes, as measured using in-line flow meters located after the static mixers, *when the cooling towers are in operation. When the Station is off-line, flow may be measured at the weir located on top of the water control structure at the north end of the discharge canal.*

² The discharge and intake temperatures will be recorded by instruments or computers. The average daily temperature shall be calculated as the 24-hour average of the hourly average (per calendar day) based upon at least twelve readings per hour (12 times per hour). The average daily temperature value will then be reported in the monthly DMRs.

³The Temperature Difference (ΔT) is the difference between the temperature of the discharge water and the temperature of the intake water, as determined by the method in footnote 2, above.

⁴The heat load shall be calculated on a daily basis using the following equation:

$$Q = C_p m (\Delta T)$$

Where Q = Heat Load, BTU/Day

C_p = Heat Capacity (Specific Heat) of pure water
= 1.0 BTU/pound°F

m = mass of water

= blowdown flow rate (MGD) x 8.34 pounds/gal

ΔT = discharge temperature at 003 - intake temperature, °F

The intake and discharge temperature will be recorded by instruments or computers. The average daily intake temperature shall be calculated as the 24-hour average (per calendar day) of the hourly average based upon at least twelve readings per hour.

The monthly heat load shall be calculated by adding each day's average heat load for that month. The facility shall sum the monthly heat loads (January - December DMRs) for the previous year, and shall report this value to EPA and the MassDEP in the following January DMR.

⁵The FAC concentration shall not exceed an instantaneous maximum concentration of 0.5 mg/l and an average daily concentration of 0.2 mg/l. Chlorine may be discharged from the cooling tower blowdown stream for more than two hours per day. Samples shall be taken when chlorine is in use.

For this permit, the Minimum Level (ML) for FAC has been defined as 0.02 mg/l and that value may be reduced as more sensitive test methods are approved by the EPA and the State. For any value below the ML of 0.02, the permittee shall use zero.

FAC shall be measured using the Amperometric Method, See 40 CFR Part 136, Table 1B.

⁶No detectable amounts from chemicals added for cooling tower maintenance (including chromium and zinc). Compliance with this limitation may be determined by engineering calculations (mass balance) which demonstrate that the regulated pollutants are not detectable in the final discharge by analytical methods in 40 CFR Part 136. EPA and/or MassDEP have discretion as to whether to accept this means of compliance in lieu of sampling.

3. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge from **internal outfall serial number 004: Wastewater Treatment Plant Effluent**.

- a. Internal outfall 004 shall be monitored at a location that is representative of wastewater treatment plant effluent and prior to mixing with any other wastewater stream. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate, MGD	2	4	Continuous	Recorder
Total Suspended Solids (TSS), mg/l	30	50	Weekly	24 hour composite ²
Oil and Grease, mg/l	15	15	Weekly	Grab
Total Iron ¹ , mg/l	1.0	1.0	Weekly	24 hour composite ²
Vanadium, mg/l	-----	Report	Weekly	24 hour composite ²
126 Priority Pollutants	-----	Report	Quarterly	24 hour composite ²
Nitrate as N, mg/l	-----	Report	Quarterly	24 hour composite ²
Aluminum, mg/l	-----	Report	Quarterly	24 hour composite ²
Cobalt, mg/l	-----	Report	Quarterly	24 hour composite ²
Manganese, mg/l	-----	Report	Quarterly	24 hour composite ²
Ammonia as N, mg/l	-----	Report	Quarterly	24 hour composite ²

¹Iron samples shall be taken after treatment of metal cleaning waste and during normal station operation.

²Composite samples shall be comprised of at least 24 flow-weighted individual samples taken hourly over one 24 hour period (a full operational day, for example 7:00 am Monday through 7:00 am Tuesday).

4. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge from **internal outfall serial number 005: Metal Cleaning Effluent (including Equipment Wash and Rinse Water)**.

- a. Internal outfall 005 shall be monitored at a location that is representative of metal cleaning wastewater and prior to mixing with any other wastewater stream. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations			Monitoring Requirements	
	Average Monthly	Total Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate, MGD	---	Report	2.03	Daily	Estimate
Total Copper, mg/l	1.0 ¹	----	1.0	Daily ²	Grab

¹Average Monthly limit shall be determined by summing the values of the daily discharge concentrations, and then dividing that value by the number of daily discharges for the month.

²Daily samples shall be collected during days on which metal cleaning waste is discharged to the WWTF.

5. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge from **outfall serial number 017A: Intake Screen Wash**.

- a. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Ave. Monthly	Max. Hourly	Measurement Frequency	Sample Type
Flow (million gallons per hour)	----	0.073	Daily	Estimate

- b. There shall be no discharge of floating solids, oil sheen or visible foam.
- c. All live fish, shellfish, and other aquatic organisms collected or trapped on the intake screens shall be returned to their natural habitat. All other material shall be removed from the intake screens and disposed of in accordance with all existing Federal, State, and/or Local laws and regulations that apply to waste disposal. Such material shall not be returned to the receiving waters.

6. During the period beginning on the permit's effective date and lasting through its expiration, the permittee is authorized to discharge from **outfall serial number 017B: Auto Strainer Backwash**.

a. Such discharge shall be limited, monitored, and reported as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Ave. Monthly	Max. Hourly	Measurement Frequency	Sample Type
Flow (million gallons per hour)	---	0.146	Daily	Estimate

b. There shall be no discharge of floating solids, oil sheen or visible foam.

7. Spectrus CT1300 may be used as a biocide subject to the following conditions:
- a. Spectrus CT1300 shall not be applied more than 6 times per year to any system. Each treatment shall not last longer than 18 hours.
- b. The dosing concentration of Spectrus CT1300 shall not exceed 8 ppm. The effluent concentration of CT1300 shall not exceed 0.2 ppm (see Part I.A.1 above).
8. The annual heat load to Mount Hope Bay shall not exceed 1.7 Trillion British Thermal Units (BTUs), as determined at outfall 003 (See Part I.A.2, footnote 4).
9. The combined intake of water for cooling shall not exceed 70 Million Gallons per Day (MGD).
10. During operation of Brayton Point Station, the permittee shall conduct biological/environmental studies as included in Part I.A.24 of this permit. Additional studies may be requested by the Regional Administrator of Region I EPA or his or her designee ("The Regional Administrator") and/or the Commissioner of MassDEP or his or her designee ("The Commissioner"). The purpose of any such studies shall be to evaluate the effects of Brayton Point Station's operation(s) on the balanced, indigenous population of shellfish, fish and wildlife in and on Mount Hope Bay.
11. This NPDES permit may be modified to contain additional or different thermal limitations if the above studies and/or other available information indicate such modifications are necessary to assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on the receiving waters.
12. Sodium hypochlorite, Halogen hydantoin (chlorine) and/or Spectrus CT1300 may be used as a biocide. No other biocide shall be used without explicit approval from the Regional Administrator and the Commissioner.
13. The chemicals listed in Attachment A are approved, with limits, for discharge. The permittee may conduct pilot studies to test various chemicals (not listed in Attachment A)

and their effectiveness in the closed cycle cooling system (anti-scalants, dispersants, corrosion inhibitors, and foam control). The Permittee shall gain approval from EPA and MassDEP before any such studies take place. A report summarizing the results of any such studies shall be submitted to EPA and MassDEP regarding discharge frequency, concentration, and the impact, if any, on the receiving water. EPA and MassDEP may require, among other things, Whole Effluent Toxicity testing as part of feasibility studies. The Permittee may not discharge any chemicals (other than those listed in Attachment A or otherwise limited by this permit) until it receives written approval from EPA.

14. The discharges shall not jeopardize any Massachusetts Class SA or SB use of Mount Hope Bay and shall not violate applicable water quality standards or degrade the aquatic habitat quality.
15. Any change in the location, design or capacity of the cooling water intake structures shall be approved by the Regional Administrator and the Commissioner.
16. This permit shall be modified, revoked or 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 207(a) (2) of the 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 requirements of the Act applicable at the time of reissuance.

17. There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid. Compliance with this requirement shall be determined using EPA Method 608, as listed in 40 CFR Part 136. The permittee shall dispose of all known PCB equipment, articles, and wastes in accordance with 40 CFR 761. The permittee shall certify that this disposal has been accomplished.
18. 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":
 1. One hundred micrograms per liter (100 µg/l);
 2. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

3. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g) (7); or
 4. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 1. Five hundred micrograms per liter (500 µg/l);
 2. one milligram per liter (1 mg/l) for antimony;
 3. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 4. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
19. There shall be no discharge of floating solids, oil sheen, or visible foam.
 20. The use of Betz Foam-Trol 301 may be used at a concentration of 0.08 mg/l during periods of heavy foam conditions. Foamtrol AF3551 may also be used to control foam. Foamtrol AF3551 may be applied at a concentration not to exceed 0.08 mg/l.
 21. Untreated Coal Pile Runoff overflow, associated with a 10 year, 24 hour rainfall event, may be discharged from the facility in accordance with 40 CFR Part 423.12(b)(10).
 22. Discharge Canal Net Requirements
 - a. The terminal end of the discharge canal shall be blocked by a net with a stretched mesh size not greater than 2 ½ inches to keep fish out of the canal.
 - b. The permittee shall count, identify, and estimate the size (total length in inches) of any dead fish collected in the net every week and report this information quarterly to the Regional Administrator and the Commissioner. The report(s) shall also contain an estimate on the number, size and species of fish sighted upstream and downstream of the net. If the report(s) indicate to the Regional Administrator and the Commissioner that the net fish barrier is ineffective, this permit may be modified to require an alternative fish barrier and an implementation schedule for its installation.

- c. To ensure maximum survival of the fish entering the discharge canal, the Regional Administrator and the Commissioner may direct the permittee to alter the canal net conditions: (1) by changing the design of net installed; (2) by changing the net mesh size; (3) by modifying the existing net; or (4) by removing the net on either a short term (experimental or seasonal) basis or on a permanent basis.
- d. The cod end of the net may be opened during maintenance and cleaning activities and, upon approval from Massachusetts Division of Marine Fisheries (DMF), during periods of high discharge temperatures.
- e. The permittee will maintain a second barrier net for immediate replacement of an installed barrier net in the canal should the installed net become badly damaged.
- f. The installed net shall be inspected every week from March 1st to December 1st each year and repaired as required.

23. Fish Mortality Provisions

a. Initial Notification and Response

- 1. If the permittee observes: (a) 50 or more dead fish of a single species from the following list: striped bass or bluefish or winter flounder or tautog or white perch; or (b) 100 of any other single species of fish (not named above) within any 24 hour period, the permittee will provide telephone notification to the Massachusetts Division of Marine Fisheries (DMF) and EPA, Office of Ecosystem Protection, within 4 hours of the observation (during normal business). If dead fish are observed during weekend, holiday or evening periods, the permittee will notify the DMF and EPA on the next business day.
- 2. On observation of fish mortalities sufficient to require notification, the permittee shall immediately initiate a separate hourly record showing: (a) the Discharge 001 temperature; (b) the dissolved oxygen levels at the Taunton River Intake Structures and at the venturi; and, (c) the number of dead fish observed by species.
- 3. On observation of fish mortalities sufficient to require notification, the permittee shall suspend all unit chlorination operations.
- 4. If after a 24 hour period from the suspension of chlorination, the fish mortalities do not exceed the levels set out in Paragraph a.1, the permittee will cease special monitoring and return to normal station operation (including unit chlorination).

b. Notification and Response in the Event of a Fish Kill

- 1. If the permittee observes, or the cumulative number of dead fish observed within any 24 hour period including a 24 hour period following the initial

observation exceeds: (a) 100 fish of any of the following species: striped bass, bluefish or winter flounder; or (b) 200 of any other single species of fish not named above, the permittee shall provide prompt telephone notification (within 4 hours during normal business hours) to the Massachusetts Division of Marine Fisheries, the Massachusetts Department of Environmental Protection Southeast Regional Office in Lakeville and Division of Watershed Management in Worcester, and the U.S. Environmental Protection Agency, Office of Ecosystem Protection, that a "Fish Kill" has occurred. If dead fish are observed during weekend, holiday or evening periods, the permittee will notify the DMF, MassDEP and EPA on the next business day.

2. On observation of a Fish Kill, the permittee shall immediately initiate a separate hourly record showing: (a) the Discharge 001 temperature; (b) the dissolved oxygen levels at the Taunton River Intake Structures and at the venturi; and (c) the number of dead fish observed by species. This record shall be maintained until advised by the DMF, MassDEP, or EPA to change to another monitoring program or discontinue the special monitoring effort.
 3. On observation of a Fish Kill, the permittee shall immediately terminate all unit chlorination operations. Chlorination will be resumed only after approval has been received from the Regional Administrator and the Commissioner.
- c. In the event of a Fish Kill in the discharge canal or in the thermal plume requiring telephone notification, the permittee will begin removing all dead fish from the canal, receiving waters, and/or from the affected beaches within four hours after the fish mortalities have been observed. The dead fish shall be enumerated in accordance with paragraph d below.
- d. The dead fish shall be sampled and weighed as follows:
1. All dead fish shall be enumerated and recorded by species.
 2. All dead fish shall be weighed to the nearest gram and measured to the nearest millimeter total length.
 3. Scale samples shall be collected for the DMF for analysis from a representative sample of 25% of each fish species killed up to a maximum of 25 total fish specimens from each species: striped bass, bluefish, winter flounder, tautog, white perch, alewife/blueback herring, and menhaden. The scale samples shall be collected from the acceptable body locations for each individual species (as directed by the DMF). Sampled fish shall be appropriately preserved for future pathological examinations as may be directed by the DMF.
- e. The permittee shall make a written report on any reported fish mortalities, within 10 business days to DMF, EPA Office of Ecosystem Protection, and MassDEP

Southeast Regional Office in Lakeville and Division of Watershed Management
in Worcester.

24. Biological and Hydrological Monitoring

- a. The permittee shall conduct the following programs of sampling and analysis each year:

1. Hydrological Data

- i. The permittee shall profile salinity, pH, and dissolved oxygen at the five sampling stations shown in Figure 1 in Attachment C at ~~the surface and bottom: 5-foot vertical intervals except for Station A where the samples will be taken 2 feet below the surface. The sampling frequency shall be: monthly from October through February through mid-May at the same time, and approximately every 4 days from March through September when Mount Hope Bay ichthyoplankton samples are taken (see Part I.A.24.a.2.ii) and weekly from mid-May through September.~~
- ii. The five stations in Figure 1 in Attachment C are identified as follows: "I" (intake), "A" (at the canal discharge venturi), "A'" (200 yards south of the venturi), "C" (mouth of the Lees River), and "F" (south of Spar Island).
- iii. The permittee shall monitor temperature at the surface and bottom at the locations identified in Figure 6 in Attachment C. The temperature shall be monitored continuously *at 15-minute intervals.*

2. Ichthyoplankton Data

- i. The permittee shall sample ichthyoplankton with paired, 60 cm bridleless "bongo" nets. *From February through April, 0.333-mm mesh nets will be used to better retain small flounder larvae and in May, when larval flounder are larger, fitted with 0.505 mm mesh nets will be employed. netting* Samples will be collected at the 5 stations indicated on Figure 2 in Attachment C, (Nos. 1, 4, 5, 9 and 10) *and one in the Brayton Point Intake Basin.*
- ii. The permittee shall collect ~~Mount Hope Bay~~ ichthyoplankton samples once in the month of February *and then weekly approximately every four days from March through mid-May.*
- iii. The samples shall be analyzed for species type and abundance.
- iv. ~~Ichthyoplankton entrained in intake cooling water will be enumerated separately in triplicate, once in February and every 4 days from March through mid-May using 0.505 mm mesh, 60-centimeter plankton nets.~~

3. Finfish Data

- i. The permittee shall sample the finfish populations once each month
by means of a *fine-mesh Wilcox trawl program consisting of ten (10) randomly selected an otter trawl along a series of six transects shown on Figure 3 in Attachment C, (Taunton River, Intake, Lee, Discharge, Cole, and Spar Island). The "Discharge Tow" shall be on the centerline of the plume at the time of the tow, if the bottom so permits. The ten tows will be randomly selected with six transects being located in shallow water and four transects being located in deep water (>20-ft deep).*
- ii. ~~The permittee shall sample shallow water finfish populations by beach seine each month at the four locations shown on Figure 4 in Attachment C (Intake, Lee, Cole, and Spar Island) during the period from March through November. On two occasions in June, twice in July and once in August, the permittee shall survey in the four main tributaries to Mount Hope Bay for abundance of young-of-the-year winter flounder. Beach seine hauls shall be completed at 18 to 21 fixed and random locations. On two occasions in June and July and once in August, the permittee shall survey upper Mount Hope Bay for abundance of young-of-the-year winter flounder. Ten fixed stations and between 4 and 11 random stations locations within the location shaded on Figure 4 in Attachment C will be sampled in triplicate by beach seine on each occasion.~~
- iii. The permittee shall record the bottom, mid-depth and surface temperatures of the open water trawls (Figure 3 in Attachment C) and the surface temperature during seining operations (Figure 4 in Attachment C) in conjunction with the Wilcox trawl and near shore bottom temperature in conjunction with the young-of-year flounder beach seine programs.
- iv. The permittee shall identify, count, and measure the finfish impinged on the intake screens during ~~three cleaning periods one 8-hour cleaning cycle per week. The three cleaning periods shall be representative of one 8-hour cleaning cycle for each of the three work shifts: day shift, afternoon shift, and night shift. The cleaning cycles need not be consecutive during any one 16 or 24-hour period.~~ Sampling shall be conducted on one occasion each week and vary the time of day to cover all three work shifts during the course of each month. For example, an 8-hour sample shall be taken during the morning work shift during week 1, an 8-hour sample shall be taken during the afternoon shift during week 2, and an 8-hour sample shall be taken during the night shift during week 3. The cycle shall be repeated beginning with week 4 and so forth.

- v. The permittee shall report all "unusual impingement events" at Brayton Point Station. An "unusual impingement event" is the

impingement of a school of fish or a large number of a single species that exceeds historical normal impingement for the screens as developed through the statistical review of the historical data.

The unusual impingement events will be reported to the Massachusetts Division of Marine Fisheries, EPA's Office of Ecosystem Protection, and MassDEP at the Southeast Regional Office in Lakeville and Division of Watershed Management in Worcester, or their respective designees by telephone as soon as the permittee knows or has reason to believe (not to exceed 4 hours during normal business hours) an unusual fish impingement event has occurred. If dead fish are observed during weekend, holiday or evening periods, the permittee will notify the DMF, MassDEP, and EPA on the next business day. The permittee shall make a written report on the fish impingement incident within 5 work days to MA DMF, MassDEP, and EPA.

4. ~~Benthic Invertebrate Data~~

~~The permittee shall collect quahogs annually from Stations A', and F on Figure 5 in Attachment C in April, July, and October and shall analyze them for: cadmium, copper, iron, lead, mercury, nickel, vanadium and zinc.~~

b. Contingency Plan

This Contingency Plan identifies actions that Brayton Point Station may undertake when improvements to the Biological and Hydrological Monitoring Program (BHP) are necessary. The Contingency Plan authorizes the evaluation, annually at a minimum, of the BHP and associated data, and, if necessary, requires recommendations for improvements in the BHP and the development of a Management Plan (See Management Plan, below).

1. BHP Evaluation

At a minimum, the BHP is evaluated through the following:

- i. An annual review of the environmental/biological sampling and analysis plan and data.
- ii. The identification of change in the aquatic or biological system.
- iii. The determination of statistically significant change.
- iv. The determination of biological importance.
- v. The determination of the likelihood that Brayton Point Station contributed to the change.

- vi. A review and analysis of BHP data variability and power analysis update.
- vii. The identification of improved sampling and/or analysis technologies, including, but not limited to: statistical methods, sampling equipment, and modeling technologies.

2. BHP Evaluation Schedule

The BHP will undergo an annual review according to the following schedule:

- i. **Sept. 1:** Permittee submits the results from the previous year's BHP to the Permitting Authorities.
- ii. **Nov. 1:** Permitting Authorities submit comments and questions to the Permittee, if any.
- iii. **Dec. 1:** Permittee schedules meeting to present data and review proposed BHP for the following year.
- iv. **Feb. 1:** Improvements reviewed and approved by the Permitting Authorities.
- v. **Mar. 1:** Permittee continues BHP and implements improvements, if applicable.

3. Management Plan

The BHP requires the Permittee to determine whether any adverse environmental impacts are occurring due to facility operations. If they are, then the Permittee shall, in a timely manner, develop and implement a Management Plan, approved by the Permitting Authorities, to prevent such impacts. A report on these efforts shall be submitted to EPA, MassDEP, and DMF every thirty days until the issue has been resolved.

c. BHP Improvements

This permit authorizes improvements, as approved by the Permitting Authorities, to the BHP when indicated by results and analysis of BHP data (acceptable data from other sources may also be considered). Analysis of data from measured parameters such as temperature, delta T, and rates of impingement, and entrainment may indicate the need for monitoring program enhancements or improvements.

The Permitting Authority will require a review, at least annually, of sampling data and protocols and an evaluation of the need for modifications to the BHP. Additional or reduced sampling locations and any other justified analytical or biological program improvements or modifications may be authorized. Prior to

authorization, the permittee must seek input from biologists from DMF, MassDEP, CZM, RI DEM, NMFS, and/or EPA. This review will be chaired by the EPA with

input from DMF, MassDEP, CZM, RI DEM, NMFS, and other agencies or experts as appropriate.

Within 30 days of authorization of biological program improvements, the permittee shall update and resubmit the Biological and Hydrological Monitoring Program to include any such improvements.

Examples of BHP improvements include, but are not limited to:

1. Additional sampling stations;
 2. Increased sampling frequency;
 3. Changes demonstrated to reduce data variability or increased analysis sensitivity;
 4. Changes demonstrated to increase the power to detect statistical significance;
 5. Collection of additional data demonstrated to more definitively determine Brayton Point Station impacts;
 6. Additional predictive models such as species-specific population, community, and/or trophic level risk.
- d. Results of biological and hydrological monitoring required in this section shall be summarized in a report and submitted on a semi-annual basis with an annual report summarizing the previous year's information and conclusions.
1. The annual report conclusions will indicate the trends of the various parameters analyzed and identify any anomalies that appear in the annual historical data comparison. These differences will be explained, if possible. The permittee will make recommendations for any remediation considered necessary or for any programs to better understand the anomaly.
 2. The semi-annual or mid-year report will be a letter report providing the status of the present programs, the expected effort in the ensuing six months, and an alert to EPA and the State of any anomalies that may be evident in the first 6-months of data collection.
- e. The permittee shall submit a yearly summary of the condenser cooling water biocide program as an integral part of the annual hydrological and biological report. The summary shall include the status of the biocide program in each unit: the chemicals being used, chemical consumption (daily/seasonal), equipment being used, TRO concentration in unit discharges and in Discharge 001, and

environmental impacts noted. Annual program changes can be proposed (as with the biological and hydrological programs) concerning the biocide program: chemicals, equipment, procedures, sampling, analysis, etc.

B. Best Management Practices for Flue Gas Desulfurization Truck Wash Water

The permittee shall implement the following Best Management Practices (BMPs) for flue gas desulfurization waste truck loading and truck wash water:

1. All trucks loaded with desulfurization waste(s) shall be loaded within a closed area.
2. Desulfurization waste material shall be loaded: 1) when dry, waste shall be loaded pneumatically into enclosed trucks; or 2) when moist (40 -50 % moisture), waste shall be loaded into 18 wheel dump trucks. If loaded into dump truck(s), the material must be discharged through a long nozzle hose which extends into the truck or truck bed.
3. All trucks shall enter a truck wash area for cleaning before leaving the property. During cold weather conditions where freezing could be an issue, the trucks shall be visually inspected for cleanliness before leaving the property. All scrubber wash water shall be collected and recycled back into the process in a closed system.

C. 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, including the MassDEP Monthly Operations and Maintenance Report, 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 (including Monthly

Operation and Maintenance Reports) 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. MassDEP Monthly Operation and Maintenance Reports 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 addresses:

**Massachusetts Department of Environmental Protection
Southern Regional Office - Bureau of Waste Prevention
20 Riverside Drive
Lakeville, Massachusetts 02347**

and

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

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

D. 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.

E. Reopener Clause

1. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (d), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutants not limited in the permit.

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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.

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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.

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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.

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- (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

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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

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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

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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.

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- 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.

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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.

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- (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

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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

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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).

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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.

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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.

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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.

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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.

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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,

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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.

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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.

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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 of 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 of 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.

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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.

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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.)

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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

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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.



Responses to Comments

Brayton Point Permit Modification NPDES Permit No. MA0003654

August 2014

In accordance with the provisions of 40 C.F.R. §124.17, this document presents EPA's responses to comments received on the National Pollutant Discharge Elimination System (NPDES) permit modification for Brayton Point Station, # MA0003654. These responses to comments explain and support EPA determinations that form the basis of the final permit modification. The Brayton Point permit modification comment period began June 6, 2014 and ended July 5, 2014.

After a review of the comments received, EPA has made a final decision to issue this permit modification authorizing changes to the biological monitoring program and adding certain clarification language. The final permit modification is substantially identical to the draft permit modification that was available for public comment.

Although EPA's decision-making process has benefitted from the comments submitted, the information and arguments presented did not raise any substantial new questions concerning the permit modification. EPA did, however, make minor changes and certain clarifications in response to comments. These improvements and changes are detailed in this document and reflected in the final permit modification. The analyses underlying these changes is explained in the responses to individual comments that follow and is reflected in the final permit.

Copies of the final permit modification may be obtained by writing or calling Sharon DeMeo, EPA's NPDES Industrial Permits Branch (OEP 06-4), Office of Ecosystem Protection, 5 Post Office Square, Suite 100, Boston, MA 02109-3912; Telephone: (617) 918-1995.

Comment 1: Regarding footnote #1 on page 4, Peter Balkus for Brayton Point Energy, LLC commented that "[s]ince the cooling tower is placed in service prior to the station generating electricity, Brayton Point suggests changing the words: 'when the Station is generating electricity' to 'when the cooling towers are in operation'."

Response 1: EPA agrees that this distinction is more appropriate and has made this change to the final permit.

Comment 2: Regarding Section 24.3.1.ii on page 14, Peter Balkus for Brayton Point Energy, LLC “suggests removing the third sentence of the paragraph which reads ‘On two occasions in June and July and once in August, the permittee shall survey upper Mount Hope Bay for abundance of young-of-year winter flounder’ since it is stated in the first sentence and makes the requirement more clear.”

Response 2: EPA disagrees that this paragraph contains redundant information. The first sentence refers to the survey of the four main tributaries to Mount Hope Bay. The sentence being requested for removal refers to the survey of upper Mount Hope Bay but not within the tributaries. Therefore, the changes outlined in the draft modification will be finalized.

Comment 3: Regarding Section 24.3.1.iii on page 14, Peter Balkus for Brayton Point Energy, LLC comments that “[s]ince it is too shallow to collect temperature readings at three depths for young of year sampling, add ‘near shore bottom temperature’ for young of year sampling.” Therefore, the suggested permit language is as follows:

The permittee shall record the bottom, mid-depth and surface temperatures in conjunction with the Wilcox trawl and near shore bottom temperature in conjunction with the young-of-year flounder beach seine program.

Response 3: EPA agrees that this change appropriately clarifies existing monitoring conditions and has changed the final permit modification accordingly.

Comment 4: Todd Callaghan, with the Massachusetts Office of Coastal Zone Management questions whether it would be prudent to “also include hydrographic [sic] data collection (salinity, pH, DO) at the Brayton Pt intake basin” considering that “[o]n p. 13 of 20, the hydrological data appears to be required at only 5 stations (Section I.A.24.a.1), yet there are 6 ichthyoplankton stations in section I.A.24.a.2.”

Response 4: EPA does not agree that requiring hydrologic data collection for intake basin is necessary because there is sufficient data representing the conditions in the bay and has not made this change to the final permit. Further, there are issues concerning access to sampling at this location.

Comment 5: Angelo Liberti, with the Rhode Island Department of Environmental Management (RI DEM) commented that they were concerned that the draft permit modification included:

changes to Part I.A.24.a.1.i which appear to eliminate the requirement to conduct receiving water analysis for salinity, pH and dissolved oxygen from mid-May through September. It is DEM’s position that the discharges from the Brayton Point station continue to have the potential to impact these water quality

parameters at the monitoring locations specified and request that the monitoring be continued mid-May through September. However, a reduction in the monitoring frequency from every 4 days to weekly, as the draft permit modification proposes for ichthyoplankton monitoring, appears appropriate.

Response 5: EPA agrees with the commenter since the suggested clarification actually represents the current monitoring practice. Therefore, the final permit at Part I.A.24.a.1.i, has been modified, as requested, to read:

The permitte shall profile salinity, pH, and dissolved oxygen at the five sampling stations shown in Figure 1 in Attachment C at the surface and bottom: February through mid-May at the same time the ichthyoplankton samples are taken (see Part I.A.24.a.2.ii) and weekly from mid-May through September.