

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)

**Sithe Mystic LLC**

is authorized to discharge from the facility located at

**Mystic Station  
173 Alford Street  
Charlestown, MA 02129**

to receiving water named

**Mystic River to Massachusetts Bay** (Mystic River Basin, MA71-02)

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

This permit shall become effective (60) sixty days from the date of issuance.

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

This permit supercedes the permit issued on August 31, 1988.

This permit consists of 22 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions, and 35 pages in Part II including General Conditions and Definitions.

Signed this 17<sup>th</sup> day of August, 2001

Signature on file  
Linda M. Murphy, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

Glenn Haas, Acting Assistant Commissioner  
Bureau of Resource Protection  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial number 001: Unit 4 once-through condenser cooling water**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (million gallons per day)	Report	112	Continuous	Recorder: Pump capacity curve and operational hours
Total Residual Chlorine <sup>(1)</sup> (mg/l) as an instantaneous maximum	Report	0.2	1/Chlorination event	Grab during chlorination event <sup>(2)</sup>
Temperature (°F)	Report	Report	Continuous	Recorder
Temperature Rise (Discharge °F minus Inlet °F)	Report	Report	Continuous	Recorder

Footnote 1. Chlorination may be conducted for no more than two hours per day for this condenser unit.

Footnote 2. The permittee may monitor Total Residual Chlorine (TRC) continuously upon the approval of the EPA and MA DEP.

Part I.A.1 (Continued)

- a. Effluent samples shall be taken prior to mixing with other waste streams through Outfall 001.

2. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial number 001: Unit 5 once-through condenser cooling water**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (million gallons per day)	Report	112	Continuous	Recorder: Pump capacity curve and operational hours
Total Residual Chlorine <sup>(1)</sup> (mg/l) as an instantaneous maximum	Report	0.2	1/Chlorination event	Grab during chlorination event <sup>(2)</sup>
Temperature (°F)	Report	Report	Continuous	Recorder
Temperature Rise (Discharge °F minus Inlet °F)	Report	Report	Continuous	Recorder

Footnote 1. Chlorination may be conducted for no more than two hours per day for this condenser unit.

Footnote 2. The permittee may monitor TRC continuously upon the approval of the EPA and MA DEP.

Part I.A.2 (Continued)

- a. Effluent samples shall be taken prior to mixing with other waste streams through Outfall 001.

3. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial number 001: Unit 6 once-through condenser cooling water**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (million gallons per day)	Report	112	Continuous	Recorder: Pump capacity curve and operational hours
Total Residual Chlorine <sup>(1)</sup> (mg/l) as an instantaneous maximum	Report	0.2	1/Chlorination event	Grab during chlorination event <sup>(2)</sup>
Temperature (°F)	Report	Report	Continuous	Recorder
Temperature Rise (Discharge °F minus Inlet °F)	Report	Report	Continuous	Recorder

Footnote 1. Chlorination may be conducted for no more than two hours per day for this condenser unit.

Footnote 2. The permittee may monitor TRC continuously upon the approval of the EPA and MA DEP.

Part I.A.3 (Continued)

- a. Effluent samples shall be taken prior to mixing with other waste streams through Outfall 001.

4. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial number 001: Unit 7 once-through condenser cooling water**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (million gallons per day)	Report	418	Continuous	Recorder: Pump capacity curve and operational hours
Total Residual Chlorine <sup>(1)</sup> (mg/l) as an instantaneous maximum	Report	0.2	1/Chlorination event	Grab during chlorination event <sup>(2)</sup>
Temperature (°F)	Report	Report	Continuous	Recorder
Temperature Rise (Discharge °F minus Inlet °F)	Report	Report	Continuous	Recorder

Footnote 1. Chlorination may be conducted for no more than two hours per day for this condenser unit.

Footnote 2. The permittee may monitor TRC continuously upon the approval of the EPA and MA DEP.

5. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge from **outfall serial number 001: once-through condenser cooling water from Units 4, 5, 6 and 7**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (million gallons per day)	Report	754	Continuous	Pump capacity curve and operational hours
Temperature (°F)	Report	93	Continuous	Recorder
Temperature Rise (Discharge T °F minus Inlet T °F)	Report	25	Continuous	Recorder
Total Residual Chlorine (mg/l) as an instantaneous maximum	Report	0.1	1/Month	Grab during monthly peak chlorination event <sup>(1)</sup>

Footnote 1: The permittee may monitor TRC continuously upon the approval of the EPA and MA DEP. The monthly peak chlorination event is when chlorine is at the highest rate over the course of the month. Monitoring is not required in any month in which no chlorine is added to any of Units 4 through 7 condenser cooling water.

- a. Effluent samples shall be taken after the last point of treatment before discharge and prior to mixing with the receiving water.
- b. There shall be no discharge of floating solids, oil sheens or visible foam attributable to station operation in other than trace amounts except in the case of condenser leak seeking and sealing. In such cases the use of a reasonable quantity of biodegradable and non-toxic material will be allowed to the extent necessary to find and/or seal the leak. The permittee shall report the times and amounts of material so used with the appropriate DMR.

6. During the period beginning on the first January of operation of Site Mystic Station Unit 8 and/or Unit 9 and lasting through permit expiration, the permittee is authorized to discharge through **outfall serial number 001: once-through condenser cooling water from Units 4, 5, 6**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Total Monthly Quantity	Total Annual Quantity <sup>(1)</sup>	Measurement Frequency	Sample Type
Flow (million gallons)	Report	60,000	Continuous	Recorder: Pump capacity curves and operational hours

Footnote 1. On January 15<sup>th</sup>, report the summation of the total volume of circulation water in million gallons as of December 31 of the previous year, and report similarly each year thereafter. A summation indicating flow greater than 60,000 million gallons (equivalent to 60.0 billion gallons or 60.0 x 10<sup>9</sup> gallons) within any given year is in violation of this permit.

7. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge from **outfall serial number 002**: the combined waste stream from **low volume waste sources** of floor drains, water treatment wastes, boiler blowdown, and boiler seal water. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (gallons per day)	Report	Report	Continuous	Recorder
Total Suspended Solids (mg/l)	30.0	100.0	1/Week	24 hour composite
Oil and Grease (mg/l)	15.0	20.0	1/Week	Grab
pH (standard units)	(see condition I.A.7.a below)		Continuous	Recorder

Part I.A.7 (Continued)

- a. The pH of the effluent shall not be less than 6.0 standard units (su) nor greater than 9.0 su. Report monthly range.
- b. Effluent samples shall be taken after the last point of treatment before discharge and prior to mixing with any other waste stream or water, except metal cleaning wastes which may be combined for treatment with low volume waste sources provided all requirements of Parts I.A.8. are met.



8. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge from **outfall serial number 002**: the combined treated waste stream of **metal cleaning wastes** from air preheater wash, boiler fireside wash, precipitator wash, boiler chemical cleaning, and feedwater heater chemical cleaning. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate (gallons per day)	Report	Report	Continuous	Recorder
Total Suspended Solids (mg/l)	30.0	100.0	Once/Day	24 hour composite
Oil and Grease (mg/l)	15.0	15.0	Once/Day	Grab
Total Copper (mg/l)	Report <sup>(1)</sup>	Report <sup>(1)</sup>	Once each discharge day <sup>(1)</sup>	24 hour composite <sup>(2)</sup>
Total Iron (mg/l)	Report <sup>(1)</sup>	Report <sup>(1)</sup>	Once each discharge day <sup>(1)</sup>	24 hour composite <sup>(2)</sup>
Total Nickel (mg/l)	Report <sup>(3)</sup>	Report <sup>(3)</sup>	Once/Quarter	24 hour composite
Total Zinc (mg/l)	Report <sup>(3)</sup>	Report <sup>(3)</sup>	Once/Quarter	24 hour composite
pH Range (standard units)	6.0 to 9.0 <sup>(4)</sup>		Continuous during discharge	Recorder

Effluent samples shall be taken after the last point of treatment.

Footnotes

1. For copper and iron limitations, a discharge day shall mean any day in which metal cleaning wastes (MCW) are entering the wastewater treatment plant and include any day that MCW are discharged, accounting for mixing and/or residence time in the treatment plant. The permittee shall report the volume of MCW entering the treatment plant and the total volume of the treatment plant effluent for each discharge day.

The effluent discharge shall not contain more than 8.34 lbs of total copper or total Iron per million gallons of MCW. The concentration of total copper or total iron shall be calculated as follows

$$\text{Concentration in Outfall 002 (mg/l)} \times \frac{(\text{Total volume from Outfall 002})(8.34)}{\text{MCW volume}}$$

expressed as pounds per million gallons.

2. The limit at which compliance/noncompliance determinations will be based is the Minimum Level (ML). For this permit, the ML for total copper has been defined as 0.005 mg/l. The ML for iron is 0.01 mg/l. These ML values may be reduced by permit modification as more sensitive test methods are approved by the EPA and the State. Any effluent value below the ML shall be reported as non detect.
3. The permit may be reopened to include limits for either total nickel and/or total zinc if there is found to be a reasonable potential, as defined at 40 CFR §122.44(d)(1)(vi), for the effluent to cause or contribute to a violation of the State Ambient Water Quality Criteria.
4. Report monthly range.

9. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge from **outfall serial number 006**: intake screen sluice water. Such discharge shall be limited and monitored by the permittee as specified below:
  - a. The temperature of the discharge shall at no time exceed the temperature of the intake water used for this discharge.
  - b. The pH of the discharge shall not be more than 0.5 standard units outside of the naturally occurring range of the intake water, with no monitoring required.
  - c. There shall be no discharge of floating solids, oil sheen or visible foam in other than trace amounts.
  
10. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge from **outfall serial number 008**: storm water discharge. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations	Monitoring Requirements	
	Maximum Value <sup>(1)</sup>	Measurement Frequency	Sample Type
Oil and Grease (mg/l)	15.0	2/Year <sup>(2)</sup>	4 Grabs
pH Range (standard units)	(see condition I.A.10.a below)	2/Year <sup>(2)</sup>	4 Grabs

Footnote 1. Maximum value of the average of 4 grab samples. Report average.

Footnote 2. Oil and grease and pH analysis of the runoff shall be conducted once in April and once in September of every year. Two samples of the runoff shall be collected during the first 20 minutes of occurrence of the rainstorm and 2 grab samples one hour later.

Part I.A.10 (Continued)

- a. The pH of the effluent shall not be less than 6.5 standard units (su) nor greater than 8.5 su or not more than 0.2 su outside of the naturally occurring range. Report monthly range.
- b. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- c. Samples shall be taken at the discharge point prior to entering the Mystic River.

- d. The discharges from outfall 008 shall be composed entirely of storm water, except the following non-storm water discharges are authorized by this permit provided they are addressed in the Storm Water Pollution Prevention Plan (SWPPP) required by Section I.B of this permit: fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; drinking fountain water, uncontaminated compressor condensate, irrigation drainage; lawn watering; routine external building washdown that does not use detergents or other compounds; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensates; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.
11. The permittee shall submit an annual report attached to each December Discharge Monitoring Report providing the following information for each Unit 4, 5, 6 and 7.
- a. Total hours operated each month over the past 12 months (January to December).
  - b. Net electrical output (in Megawatt hours) each month over the past 12 months (January to December). Net electrical output means the total actual electrical output of the unit used by the New England Independent System Operator to determine settlement resources of energy market participants.
  - c. Total hours circulating water pump(s) operated each month over the past 12 months (January to December).

EPA suggests that this information be presented in tabular form as demonstrated below:

Unit No.	Total Hours Operated During Month	Megawatt Hours Generated During Month	Total Hours Circulating Water Pumps Operated During Month
4			
5			
6			
7			Pump A:
			Pump B:

12. Biological and Thermal Monitoring. Within three months of the issuance of the permit, the permittee shall work with the Massachusetts Division of Marine Fisheries, Massachusetts Department of Environmental Protection, and EPA to develop a multi-year biomonitoring program. Upon receipt of a notice to proceed from EPA, the permittee shall undertake this program. At a minimum, the program shall address the following:

a. Occurrence and abundance of species entrained

- (1) Entrainment monitoring shall be conducted weekly March through September and biweekly October through February
- (2) Three entrainment samples shall be collected each sampling week. One morning, one afternoon and one night spaced throughout the week (e.g. Monday night, Wednesday afternoon, Friday morning)
- (3) Entrainment samples shall be collected from the discharge and from an area near the intake structure
- (4) Entrainment sampling in discharge shall be completed simultaneously with intake sampling. (Note: If offsite sampling is required under paragraph 12 (d) then sampling should be conducted on the same days.)
- (5) Sampling shall be conducted using 0.333 mm mesh 60-cm plankton net from October through February. Volume shall equal approximately 100-150 m<sup>3</sup>. A standard mesh of 0.202 mm shall be required during the period of highest abundance of early stage winter flounder (late March to late April). The volume of water sampled shall be measured and shall be in excess of 100 m<sup>3</sup>.
- (6) Annual larval entrainment estimates shall be converted to adult equivalents for species in which regionally specific larval survival rates are available. Larval winter flounder shall be enumerated into different life stages, and the staged enumeration shall be used in estimating adult equivalents for this species.

b. Occurrence and abundance of species impinged.

- (1) Collections shall be made separately from each intake screen three times per week by collecting fish at the end of a timed interval following a screenwash.
- (2) Collections shall be made throughout the week and at various times of day (e.g. Monday morning, Wednesday night and Friday afternoon)
- (3) Collections shall cover a period of four to eight hours depending upon algae and debris loading.
- (4) All fish will be identified, counted and measured.

- c. Extent of Thermal Plume: EPA has reviewed the thermal studies done for Mystic Station in the mid 1970s. These studies provided delta T isotherms at various depths on various tidal conditions. A key piece of information not provided by this analysis is benthic area of the receiving water contacted by the thermal plume. The permittee shall measure the temperature of the bottom-water while the plant is under normal load at various tidal cycles.
- d. Determination of conditional mortality: Upon request by Massachusetts Department of Environmental Protection and/or EPA, the permittee shall submit a scope of work to determine the conditional mortality of selected species named in the request. The scope of work would likely entail: geographically bounding the respective population impacted, determining the distribution of the population within the bounds, and estimating abundance of this population. Massachusetts Division of Marine Fisheries, Massachusetts Department of Environmental Protection and EPA anticipate that the timing and scope of this request will depend mainly upon the results of the initial biomonitoring program conducted under paragraph 12 (a) and based on implementation of BTA for the cooling water intake structures at Mystic Station units 4-7, chiefly the flow reductions, required by this permit.

13. Discharge Related Mortality

- a. The permittee shall visually inspect the shoreline areas adjacent to the discharge, for a distance of 600 ft. on either side of the discharge for dead fish at least every 48 hours from April to November of each year and at least once a week from December to May of each year. A fish shall be considered dead if it exhibits a loss of equilibrium.
- b. If the permittee observes: (a) 50 or more dead fish of the following species: 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 shall:
  - (1) report to the Regional Administrator and the Director within 24 hours by telephone as required by Part II of this permit. A written confirmation report is to be provided within five days. These reports should include the following information:
    - (a) Characterization of fish killed: All dead fish shall be enumerated and recorded by species. Report the species, size ranges, and approximate number and/or weight of organisms involved in the incident. In addition, from a representative sample of 25% of each fish species killed, up to a maximum of 25 total fish specimens from each of the following species (striped bass, bluefish, winter flounder, tautog, white perch, alewife/blueback herring, and menhaden) shall be sampled and weighed as follows:
      - (i) Weight/Length: The dead fish shall be weighed to the nearest gram and measured to the nearest centimeter total length.

- (ii) Scale samples: These shall be collected for the Massachusetts Division of Marine Fisheries (DMF). 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 examination as may be directed by the DMF.
  - (b) The time and date of the occurrence.
  - (c) The operational mode of the specific facility system that was in operation that may have caused the occurrence.
  - (d) The opinion of the permittee as to the reason the incident occurred.
  - (f) The remedial action that the permittee recommends to reduce or eliminate this type of incident.
- (2) Immediately collect a water sample of the discharge to be analyzed for Total Residual Oxidants (TRO). In addition, the permittee shall immediately initiate a separate hourly record showing: (1) the point of discharge temperature; (2) the dissolved oxygen levels at the intake structures and at the discharge; (3) the number of dead fish observed by species; and (4) the Total Residual Oxidant (TRO) level of the discharge.
  - (3) Suspend all unit chlorination operations immediately after collection of water samples for TRO. If the discharge temperature is greater than 90°F, the permittee will reduce the discharge temperature to 90°F within two hours.
  - (4) If at the end of the 24 hour period from the initial observation, fish mortalities do not exceed the levels set out in Paragraph 14.b. below, the permittee will cease special monitoring and return to normal station operation (including unit chlorination).

#### 14. Unusual Impingement Event

- a. The permittee shall visually inspect the intake screens of each operating cooling water intake structure once a day for dead and live fish.
- b. If the permittee observes on the cooling water intake screens, or estimates, based on temporally-limited observations: (a) 50 or more dead fish of the following species: 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 shall:
  - (1) Initiate continuous screen washes.





- (2) Report to the Regional Administrator and the Director within 24 hours by telephone as required by Part II of this permit. A written confirmation report is to be provided within five days. These reports should include the following information:
  - (a) All dead fish shall be enumerated and recorded by species. Report the species, size ranges, and approximate number and/or weight of organisms involved in the incident. In addition, from a representative sample of 25% of each fish species killed, up to a maximum of 25 total fish specimens from each of the following species (striped bass, bluefish, winter flounder, tautog, white perch, alewife/blueback herring, and menhaden) shall be weighed to the nearest gram and measured to the nearest centimeter total length.
  - (b) The time and date of the occurrence.
  - (c) The operational mode of the specific system that that may have caused the occurrence.
  - (d) The opinion of the permittee as to the reason the incident occurred.
  - (e) The remedial action that the permittee recommends to reduce or eliminate this type of incident.
15. Except as specified in Parts I.A.1 through I.A.14 herein the permittee shall not discharge to the Mystic River a final effluent to which it has added any pollutants.
  - a. Discharges shall not impair any Class SB use of the Mystic River and shall not violate any applicable narrative criteria from the state water quality standards, although discharges may exceed numeric temperature criteria included in state water quality standards to the extent that such discharges comply with temperature and flow limits specified herein pursuant to section 316(a) of the Clean Water Act.
  - b. The thermal plumes from the station shall: (a) not block zones of fish passage, (b) not interfere with spawning of indigenous populations, (c) not change the balanced indigenous population of the receiving water, and (d) have minimum contact with surrounding shorelines.
  - c. With the fulfillment of the requirements in Parts I.A.6 and I.A.12.d of this permit EPA makes the determination that, based on existing information, the cooling water intake structures employ the best technology available (BTA) for minimizing adverse environmental impacts. The present design and operation shall be further reviewed for conformity to Clean Water Act Section 316(b), based in part on information collected as required by Parts I.A.11 and I.A.12 of this permit and the ability of the permittee to reduce circulating water flow or otherwise reduce adverse environmental impact caused

by the cooling water intake structures (CWIS). No change in the location, design, or capacity of the present CWIS can be made without prior approval of EPA and the MA DEP.

- d. The circulating water pumps of Units 4 through 7 shall be operated primarily for condenser cooling, and shall be operated only when the associated unit is either producing electricity, during unit warm up or cool down, or during brief periods of no longer than a few hours between unit operation, cool down and warm up. The circulating water pumps shall not be operated solely for any of the following purposes: auxiliary cooling, to keep mussels alive/attached in the intake and circulating water loop, and/or to extend pump life because the current design allows condensation to form within the pump motor after shutdown.
- e. All live fish, shellfish, and other aquatic organisms collected or trapped on the intake screens shall be returned alive to water of ambient temperature sufficiently distant from the intake structures to prevent reimpingement. All solid materials including leaves and twigs removed from the screens shall be disposed of properly.
- f. The intake screens for unit 7 shall be operated one full revolution for every eight hours unit 7 circulation pumps are operated, unless the fish impingement rate equals or exceeds five fish per hour. Should the fish impingement rate equal or exceed five fish per hour the traveling screens must be run continuously until the impingement rate decreases to less than five fish per hour.
- g. Chlorine may be used as a biocide. No other biocide shall be used without explicit approval from EPA and the Director. Total residual chlorine (total residual oxidants) may not be discharged from any single generating unit for more than two hours per day. The quantity of total residual chlorine (total residual oxidants) discharged in once-through cooling water from each individual generating unit shall not at any time exceed a maximum concentration of 0.2 mg/l. The quantity of total residual chlorine (TRC) or total residual oxidants (TRO) discharged in the combined once-through cooling water from Units 4-7 shall not at any time exceed a maximum concentration of 0.1 mg/l. The "Maximum Daily" TRC or TRO limit shall always mean the "value that shall not be exceeded" for both the guideline value (40 CFR 423) of 0.2 mg/l or the State Water Quality value of 0.1 mg/l. The term "instantaneous maximum" is used in the limitations tables of this permit to emphasize this requirement. Simultaneous multi-unit chlorination is permitted. Bromine may be used as a chlorine adjunct upon approval of EPA and the State.
- h. In the event of fish mortalities in the discharge or in the thermal plume, the permittee will begin removing all dead fish from the receiving waters, or from the shoreline within four hours after the fish mortalities have been observed, while also complying with all the monitoring and reporting requirements in this permit.
- i. There shall be no discharge of polychlorinated biphenyl compounds such as those once commonly used for transformer fluids.

- j. Pollutants which are not limited by this permit, but which have been specifically disclosed in the permit application, may be discharged up to the frequency and level disclosed in the application, provided that such discharge does not violate Section 307 or 311 of the Clean Water Act (CWA) or applicable state water quality standards.
- k. The effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.
- l. Discharges to the Mystic River shall be adequately treated to insure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. They shall be adequately treated to insure that the surface waters remain free from pollutants which produce odor, color, taste, or turbidity in the receiving water which is not naturally occurring and would render it unsuitable for its designated uses.
- m. 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 307(a)(2) of the Clean Water Act (CWA), if the effluent standard or limitation so issued or approved:
  - (1) contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
  - (2) controls any pollutant not limited by this permit.

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

- n. 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):
  - (1) 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":
    - (a) One hundred micrograms per liter (100 ug/l);
    - (b) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
    - (c) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

- (2) 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:"
  - (a) Five hundred micrograms per liter (500 ug/l);
  - (b) One milligram per liter (1 mg/l) for antimony;
  - (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
  - (d) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
- (3) 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.

**B. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

1. The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for this facility and shall provide for compliance with the terms of Part I.B of the permit and the SWPPP no later than 180 days after the effective date of this permit. The SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity at the facility and mitigate these where possible.
2. The SWPPP shall include the following components as a minimum. The permittee may use the EPA's Storm Water Multi-Sector General Permit for Industrial Activities, Federal Register vol. 60, no.189, Friday September 29, 1995, pgs 51197-51203 as guidance. The SWPPP shall contain the following minimum elements:
  - a. Pollution Prevention Team
  - b. Description of potential pollutant sources including information on:
    - (1) Drainage
    - (2) Inventory of exposed materials
    - (3) Spills and leaks
    - (4) Sampling data
    - (5) Risk identification and summary of potential pollutant sources

- c. Description of storm water measures and controls including:
  - (1) Good house keeping
  - (2) Preventive maintenance
  - (3) Spill prevention and response procedures
  - (4) Source reduction
  - (5) Management of runoff
  - (6) Inspections
  - (7) Pollution prevention training
  - (8) Record keeping and internal reporting procedures
  - (9) Identification of non-storm water discharges
  - (10) Sediment and erosion control
3. The Director, or authorized representative, may notify the permittee at any time that the plan does not meet one or more of the minimum requirements detailed above. Any notification shall identify those provisions of the permit that are not being met by the plan, and identify which provisions of the plan requires modification in order to meet the minimum requirements of this permit. The permittee shall make the required changes to the SWPPP within 30 days of a notification and submit to EPA a written certification that the required changes have been made.
4. The permittee shall amend the plan whenever there is a change in design, construction, operation or maintenance at the facility, that has a significant effect on the potential for the discharge of pollutants or if the SWPPP is ineffective in eliminating or significantly minimizing pollutants from the sources identified in the SWPPP.
5. A comprehensive site compliance evaluation shall be performed annually. The evaluation shall include the following:
  - a. Areas contributing to storm water discharges shall be inspected visually for evidence of, or the potential for, pollutants to enter the drainage system. Structural storm water management measures, etc., shall be evaluated to ensure proper operation.
  - b. Based on the results of the evaluation, the SWPPP shall be revised, if appropriate, within 2 weeks of the evaluation and shall provide a schedule for timely implementation of any changes to the plan.
  - c. A report of the results of the evaluation shall be made and retained as part of the SWPPP.
6. The SWPPP shall be signed in accordance with the requirements of Part II of this permit and be retained on site.

### **C. MONITORING AND REPORTING**

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate discharge monitoring report (DMR) forms postmarked no later than the 15th day of the month following the effective date of the permit. The annual summary data required

by Part I.A.11 shall be attached to the DMR for the month of December.

Sithe Mystic LLC may assert a business confidentiality claim with respect to part or all of the information submitted to EPA in the manner described at 40 CFR Part 2.203(b). Information covered by such a claim will be disclosed by EPA only to the extent, and by means, of the procedures set forth in 40 CFR Part 2, Subpart B. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Sithe Mystic LLC. Effluent information shall not be regarded as confidential.

Signed and dated originals of the DMRs, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

U.S. Environmental Protection Agency  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention  
205A Lowell Street  
Wilmington, MA 01887

In addition, copies of all Discharge Monitoring Reports shall be submitted to the following address:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street  
Worcester, MA 01608

#### **D. STATE PERMIT CONDITIONS**

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under federal and state law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap. 21, §43.

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 an 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.