W. Discharge Serial No. 001C-1
Monitoring Location: 1
Description: Unit No. 3 Steam Generator Blowdown Discharge
(Discharge Code 101060z)
Maximum Daily Flow: 1,400,000 gallons per day

(1) The temperature of the discharge shall not exceed 220°F.

(2) Prior to the use of ethanolamine and diaminoethane the permittee must submit for the review and approval of the Commissioner an engineering report on process modifications.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015	See (1) Above	Weekly	Grab
Total Suspended Solids	00530-019	60.0 mg/l	Weekly	Grab
pH	00400-012		Weekly	Grab
Boric Acid	00698-056		Weekly	Grab
Ethanolamine	C0196-019	See (d) Below		
Diaminoethane	C0195-019	See (d) Below		

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring weekly for boric acid required only when boric acid treatment of steam generator occurs.

(d) Monitoring for ethanolamine and diaminoethane shall be performed as approved by the Commissioner in accordance with Paragraph W.(2) above.

(e) Radiation monitoring is performed in accordance with Paragraph 2. above.

X. Discharge Serial No. 001C-1(a)
Monitoring Location: 1
Description: Unit No. 3 Steam Generator Secondary Side Wet Layup Drainage Discharge (Discharge Code 117000a)
Maximum Flow per Batch: 144,000 gallons
Maximum Frequency of Discharge: Two per day
Expected Frequency: Twelve per year

(1) A minimum of two (2) condenser circulating pumps shall be in service on Unit 3 during discharge.

(2) Prior to the use of ethanolamine or diamenoethane the permittee shall submit for the review and approval of the Commissioner an engineering report on process modifications.

(3) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Hydrazine	81313-019	125.0 mg/l	Daily (c)	Grab
Ethanolamine	C0196-019	See (d) Below		
Diaminoethane	C0195-019	See (d) Below		

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection and/or the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling required only when discharging steam generator secondary side wet layup drainage.

(d) Monitoring for ethanolamine and diaminoethane shall be performed as approved by the Commissioner in accordance with Paragraph X.(2). above.

(e) Radiation monitoring is performed in accordance with Paragraph 2 above.

Y. Discharge Serial No. 001C-2
Monitoring Location: 1
Description: Unit No. 3 Radiation Waste Test Tank Discharge (Discharge Code 153000n)
Maximum Daily per Batch: 25,000 gallons
Maximum Frequency of Discharge: Two per day
Expected Frequency: Two per day

(1) A minimum of two (2) condenser circulating pumps shall be in service on Unit 3 during discharge except during Unit 3 shutdowns. During Unit 3 shutdowns, the maximum discharge flow shall be 15.0 gallons per minute and a minimum flow eqivalent to two (2) service water pumps shall be in service on Unit 3 during discharge.

Parameter	Code	Maximum Quantity Per Batch	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Boric Acid	00698-056	952.4 kg		Weekly	Grab
Lithium-Total	01132-019			Weekly	Grab
Specific Conductivity	00095-011			Weekly	Grab
pH	00400-012			Weekly	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Radiation monitoring is performed in accordance with Paragraph 2. above.

2. Discharge Serial No. 001C-3
Monitoring Location: 1
Description: Low Level Radiation Waste Drain Tank Discharge (Discharge Code 117000a)
Maximum Flow per Batch: 5,000 gallons
Maximum Frequency of Discharge: Four per day
Expected Frequency: Four per day

(1) The maximum concentration specified below shall not be exceeded at any time.

(2) A minimum of two (2) condenser circulating pumps shall be in service on Unit 3 during discharge if at any time the boric acid evaporator units are not functional and the boric acid concentration exceeds 30 mg/l.

Parameter	Code	Maximum Quantity Per Batch	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Boric Acid	00698-056	250. kg		Weekly	Grab
Total Suspended Solids	00530-019		45.0 mg/l	Weekly	Grab
pH	00400-012			Weekly	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Radiation monitoring is performed in accordance with Paragraph 2. above.

AA. Discharge Serial No. 001C-4
Monitoring Location: 1
Description: Unit No. 3 Makeup Demineralizer Backwash Discharge Including Feedwater System Wet Layup Drainage and Auxiliary Boiler Stack Drainage (Discharge Code 1060000)
Maximum Flow per Batch: 80,000 gallons
Maximum Frequency of Discharge: One per day
Expected Frequency: One per day

(1) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Total Suspended Solids	00530-019	45.0 mg/l	Weekly	Grab
Hydrazine	81313-019	75.0 mg/l	Weekly (c)	Grab
pH	00400-012		Weekly	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling weekly for hydrazine required only when draining the feedwater system wet layup or the auxiliary boiler stack system.

BB. Discharge Serial No. 001C-5
Monitoring Location: 1
Description: Unit No. 3 Auxiliary Heat Exchanger (Service Water) Discharge (Discharge Code 102000d)
Maximum Daily Flow: 43,200,000 gallons per day

(1) The temperature of the discharge shall not exceed 100° F.

Parameter	Code		Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015	See	(1) Above	Weekly	Instantaneous
Free Available Chlorine	50064-019		0.25 mg/l	Weekly	Grab

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

CC. Discharge Serial No. 001C-6
Monitoring Location: 1
Description: Unit No. 3 Condensate Polisher Regeneration Wastewater Neutralization Tank Discharge Including Plant Equipment Washwaters And Unit No. 3 Hot Water Heating System Drainage (Discharge Code 1060000)
Maximum Flow per Batch: 25,000 gallons
Maximum Frequency of Discharge: Two per day
Expected Frequency: Two per day

(1) The temperature of the discharge shall not exceed 100°F.

(2) The pH of the discharge shall not be less than 6.0 or greater than 9.0. (Code 00400-012)

(3) Prior to the use of ethanolamine and diaminoethane the permittee must submit for the review and and approval of the Commissioner an engineering report on process modifications.

(4) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Quantity Per Day	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015		See (1) Above	Weekly	Grab
pH	00400-019		See (2) Above	Hourly	Grab
Total Suspended Solids	00530-019		45.0 mg/l	Weekly	Grab
Total Suspended Solids	00530-056	4.24 kg		Weekly	Grab
Oil and Grease-T	70030-056	188. kg		Monthly	Grab
Oil and Grease-T	70030-019		20.0 mg/l	Monthly	Grab
Hydrazine	81313-019		75.0 mg/l	Daily (c)	Grab
Ethanolamine	C0196-056		See (d) Below		
Diaminoethane	C0195-056		See (d) Below		

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection and/or the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling daily for boric acid and hydrazine is required only when Unit No. 3 Hot Water Heating System is being discharged.

(d) Monitoring for ethanolamine and diaminoethane shall be performed as approved by the Commissioner in accordance with Paragraph CC.(3) above.

(e) Radiation monitoring is performed in accordance with Paragraph 2 above.

DD. Discharge Serial No. 0010-6(a)
Monitoring Location: 1
Description: Unit No. 3 Steam Generator Chemical Decontamination Wastewater (Discharge Code 1060000)
Maximum Flow per Batch: 40,000 gallons
Maximum Frequency of Discharge: One per day
Expected Frequency: One per year

(1) The pH of the discharge shall not be less than 6.0 or greater than 9.0. (Code 00400-012)

(2) The maximum concentrations specified below shall not be exceeded at any time.

(3) Sixty days prior to performing chemical decontamination of the steam generator the permittee must submit for the review and approval of the Commissioner an engineering report on process modifications.

Parameter	Code	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Biochemical Oxygen Demand5	00310-019		Daily	Daily Composite
Chemical Oxygen Demand	81017-019		Daily	Daily Composite
Citric Acid	77666-019		Daily	Daily Composite
Oxalic Acid	77081-019		Daily	Daily Composite
Nitric Acid	C0091-019		Daily	Daily Composite
Permanganate	C0109-019		Daily	Daily Composite
Ethylenediamine Tetraacetic Acid	78151-019		Daily	Daily Composite
Hydrogen Peroxide	00139-019		Daily	Daily Composite
Formic Acid	77006-019		Daily	Daily Composite
Copper-Total	01042-019	1.0 mg/l	Daily	Daily Composite
Iron-Total	01045-019	1.0 mg/l	Daily	Daily Composite
Cadmium-Total	01027-019	0.1 mg/l	Daily	Daily Composite
Chromium-Total	01034-019	1.0 mg/l	Daily	Daily Composite
Lead-Total	01051-019	0.1 mg/l	Daily	Daily Composite
Nickel-Total	01067-019	1.0 mg/l	Daily	Daily Composite
Zinc-Total	01092-019	1.0 mg/l	Daily	Daily Composite
Total Suspended Solids	00530-019	30.0 mg/l	Daily	Daily Composite
pH	00400-019	SEE NOTE (1) ABOVE	Hourly	Range During Composite
Oil and Grease-T	70030-019	30.0 mg/l	Daily	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection and/or the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling required only when discharging steam generator chemical decontamination wastewater. Sampling required only for parameters included in the process approved by the Commissioner in accordance with Paragraph DD.(3) above.

EE. Discharge Serial No. 001C-6(b)
Monitoring Location: 1
Description: Unit No. 3 Auxiliary Boiler Blowdown Sump Discharge (Discharge Code 117000a)
Maximum Daily Flow: 72,000 gallons

(1) The temperature of the discharge shall not exceed 210°F.

(2) The maximum concentration specified below shall not be exceeded at any time.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015	See (1) Above	Weekly (c)	Grab
Hydrazine	81313-019	75.0 mg/l	Weekly (c)	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling weekly is required only when the auxiliary boiler is in operation.

FF. Discharge Serial No. 001C-8
Monitoring Location: 1
Description: Unit No. 3 Condenser Hotwell Discharge (Discharge Code 1170000)
Maximum Flow per Batch: 100,000 gallons
Maximum Frequency of Discharge: One per day
Expected Frequency: Five per year

(1) The temperature of the discharge shall not exceed 112°F.

(2) Prior to the use of ethanolamine and diaminoethane the permittee must submit for the review and approval of the Commissioner an engineering report on process modifications.

(3) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Concentration Per Batch	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015	See (1) Above	Daily (c)	Grab
pH	00400-012		Daily (c)	Instantaneous
Total Suspended Solids	00530-019	45.0 mg/l	Daily (c)	Grab
Total Iron	01045-019	5.0 mg/l	Daily (c)	Grab
Hydrazine	81313-019	50.0 mg/l	Daily (c)	Grab
Ethanolamine	C0196-019	See (d) Below		
Diaminoethane	C0195-019	See (d) Below		

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling daily is required only when condenser hotwell discharge occurs.

(d) Monitoring for ethanolamine and diaminoethane shall be performed as approved by the Commissioner in accordance with Paragraph FF.(2) above.

GG. Discharge Serial No. 001C-9
Monitoring Location: 1
Description: Unit No. 3 Non-contaminated Closed Cooling Water System Drainage Discharge (Discharge Code 102000b)
Maximum Daily Flow: 30,000 gallons per day

(1) The temperature of the discharge shall not exceed 100°F.

(2) The maximum concentration specified below shall not be exceeded at any time.

(3) A minimum of two (2) condenser circulating pumps shall be in service on Unit 3 during discharge except during Unit 3 shutdowns. During Unit 3 shutdowns, the maximum discharge flow shall be 10.0 gallons per minute and a minimum flow eqivalent to two (2) service water pumps shall be in service on Unit 3 during discharge.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Temperature °F	00011-015	See (1) Above	Daily (c)	Grab
Hydrazine	81313-019	75.0 mg/l	Daily (c)	Grab

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Sampling daily for temperature and hydrazine required only when discharging closed cooling water system drainage.

HH. Discharge Serial No. 002
Description: Unit No. 1 Screen Washwater Discharge (Discharge Code 106000n)
Receiving Stream - Niantic Bay (Basin Code 2000)
Present/Future Water Quality Standard - SA/SA
Maximum Daily Flow: 2,016,000 gallons

II. Discharge Serial No. 003
Description - Unit No. 2 Screen Washwater Discharge (Code 106000n)
Receiving Stream - Niantic Bay (Basin Code 2000)
Present/Future Water Quality Standard - SA/SA
Maximum Daily Flow - 2,540,000 gallons

JJ. Discharge Serial No. 004
Description - Unit No. 3 Screen Washwater Discharge (Code 106000n)
Receiving Stream - Niantic Bay (Basin Code 2000)
Present/Future Water Quality Standard - SA/SA
Maximum Daily Flow - 5,760,000 gallons

KK. Discharge Serial No. 005-1
Monitoring Location: 1
Description: Unit No. 1 Non-contaminated Floor Drains, Transformer Yard Drains, Water Washes, Clean Water Drains, and Surface Water Runoff (Discharge Code 1080000)
Receiving Stream: Long Island Sound via Quarry Cut (Basin Code 2000)
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

(1) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Oil and Grease-T	70030-019	20.0 mg/l	Monthly (c)	Grab
Total Suspended Solids	00530-019	30.0 mg/l	Monthly	Grab

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring monthly required when oil separator discharge occurs.

LL. Discharge Serial No. 006-1
Monitoring Location: 1
Description: Unit No. 2 and Unit No. 3 Non-contaminated Floor Drains Including Boric Acid From Steam Generator Treatment, Continuous Blowdown From R. O. Treatment of Makeup Water, Unit No. 2 and Unit No. 3 Diesel Generator Cooling Water Drainage, Water Softener Regeneration Drainage, Unit No. 3 Control Building Cooling System Drainage, Water Washes, Clean Water Drains, and Surface Water Runoff (Discharge Code 101060z)
Receiving Stream: Niantic Bay (Basin Code 2000)
Present/Future Water Quality Standard: SA/SA
Maximum Daily Flow: 432,000 gallons (Excluding Surface Water Runoff)

(1) The maximum limits specified below shall not be exceeded at any time.

(2) The pH of the discharge shall not be less than 6.0 or greater than 9.0 (Code 00400-012).

Parameter	Code	Average Monthly Limits	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Aquatic Toxicity, Acute	C0019-09A	See paragraph 3.LL.(3) below		Quarterly	Daily Composite
Aquatic Toxicity, Chronic	C0020-09A	See paragraph 3.LL.(4) below		Quarterly	Daily Composite
Boric Acid	00698-001		See (f) below	Weekly (d)	Daily Composite
Oil and Grease-T	70030-019	10.0 mg/l	20.0 mg/l	Monthly (c)	Grab Sample Average
Total Suspended Solids	00530-019	20.0 mg/l	30.0 mg/l	Weekly (e)	Daily Composite
pH	00400-012	See (2) Above		Weekly (e)	Range during Composite
Copper-Total	01042-001	.0474 kg/d	See (f) below	Weekly	Daily Composite
Lead-Total	01051-001	.2273 kg/d	See (f) below	Weekly	Daily Composite
Nickel-Total	01067-001	.2207 kg/d	See (f) below	Weekly	Daily Composite
Zinc-Total	01092-019	.401 kg/d	See (f) below	Weekly	Daily Composite
Total Residual Chlorine	50060-019	.12 mg/l	.24 mg/l	Weekly	Grab Sample Average
Ammonia-N	00610-019			Quarterly	Daily Composite
Surfactants Anionic	38260-019			Quarterly	Daily Composite

(a) The permittee shall record the instantaneous flow (Code 00058-07B) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring monthly for oil and grease required when oil separator discharge occurs.

(d) Monitoring weekly for boric acid required only when boric acid treatment of steam generator occurs.

(e) Monitoring weekly for total suspended solids and pH shall only include dry weather flows.

(f) The following maximum daily limits shall apply for boric acid, total copper, total lead, total nickel and total zinc respectively: Boric Acid-4.1 kg/d, Cu-.0948 kg/d, Pb-.2546 kg/d, Ni-.4414 kg/d, Zn-.802 kg/d.

(3) Effective upon issuance and thereafter a daily composite sample of the effluent shall not exhibit acute toxicity in the receiving waterbody.

(a) Dilution equivalent to 342,000 gallons per hour (gph) is allocated to a zone of influence for assimilation of toxicity. This allocation shall be used to calculate the instream waste concentration (IWC) according to the formula:

$$IWC = \frac{\text{maximum daily flow}}{(\text{maximum daily flow} + \text{allocated zone of influence flow})} \times 100$$

(b) In lieu of maximum daily flow, the mean effluent flow rate for the previous 30 operating days may be used to calculate the instream waste concentration provided the permittee maintains an accurate record of the total flow and number of hours of discharge for each operating day and provided that the flow rate for any one operating day used in calculating the mean does not exceed the mean flow by more than twenty-five percent (25%).

(c) Compliance with this permit condition shall be achieved when the LC_{50} value for the effluent is greater than three (3) times the IWC.

(d) Monitoring to determine compliance with this limit shall be performed Quarterly (January, April, July, October) following the toxicity testing protocol for static acute toxicity tests in "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" (EPA 600/4-85/013) with the following specifications:

(i) Mysidopsis bahia (5 days old or less) shall be used as test organisms.

(ii) Synthetic or natural seawater adjusted to a salinity of 28-32 ppt shall be used as dilution water in the tests.

(iii) Test duration shall be 48 hours for Mysidopsis bahia.

(4) Effective upon issuance and thereafter a daily composite sample of the effluent shall not exhibit chronic toxicity in the receiving waterbody.

(a) Dilution equivalent to 342,000 gallons per hour (gph) is allocated to a zone of influence for assimilation of toxicity. This allocation shall be used to calculate the instream waste concentration (IWC) according to the formula:

$$IWC = \frac{\text{maximum daily flow}}{(\text{maximum daily flow} + \text{allocated zone of influence flow})} \times 100$$

(b) In lieu of maximum daily flow, the mean effluent flow rate for the previous 30 operating days may be used to calculate the instream waste concentration provided the permittee maintains an accurate record of the total flow and number of hours of discharge for each operating day and provided that the flow rate for any one operating day used in calculating the mean does not exceed the mean flow by more then twenty-five percent (25%).

(c) Compliance with this permit condition shall be achieved when the LC_{50} value for the effluent is greater than twenty (20) times the IWC.

(d) Monitoring to determine compliance with this limit shall be performed Quarterly (January, April, July, October) following the toxicity testing protocol for static acute toxicity tests in 'Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms' (EPA 600/4-85/013) with the following specifications:

(i) Mysidopsis bahia (5 days old or less) shall be used as test organisms.

(ii) Synthetic or natural seawater adjusted to a salinity of 28-32 ppt shall be used as dilution water in the tests.

(iii) Test duration shall be 48 hours for Mysidopsis bahia.

(5) (a) In determining LC_{50} values, five (5) test concentrations, in duplicate, shall be utilized.

(b) The LC_{50} value shall be determined by the computational method (Binomial Distribution, Probit Analysis, Moving Average Angle, Spearman-Karber) which yields the smallest 95% confidence interval and LC_{50} value which is consistent with the dose-response data.

(c) Any test in which the survival of test organisms is less than ninety (90) percent in each replicate control test chamber or failure to achieve test conditions as specified in Section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies, such as maintenance of appropriate environmental controls, shall constitute an invalid test and will require immediate retesting. Failure to submit valid test results constitutes a permit violation.

(d) Results of the toxicity tests required as part of this permit condition shall be entered on the Discharge Monitoring Report (DMR) for the month in which it was performed, using the appropriate parameter code. Additionally, complete and accurate test data, including all supporting chemical/physical measurements performed in association with the toxicity tests, as well as dose/response data shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR). The ATMR shall be sent to the following address:

Aquatic Toxicity
Connecticut Department of Environmental Protection
Water Compliance Unit
122 Washington Street
Hartford, CT 06106

(e) If any test result indicates that the maximum daily toxicity limit for the effluent has been exceeded, a second sample of the effluent shall be collected and tested as described above and the results reported to the Commissioner within 30 days of the receipt of the first set of test results.

(f) If any two consecutive test results or any three test results in a single year indicate that the maximum daily toxicity limit has been exceeded, the permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report for the review and approval of the Commissioner in accordance with Section 22a-430-3(j)(10)(c) of the Regulations of Connecticut State Agencies describing proposed steps to eliminate the toxic impact of the discharge on the receiving waterbody. Such a report shall include a proposed time schedule to accomplish toxicity reduction.

MM. Discharge Serial No. 007
Description: Surface Water Runoff (Discharge Code 108000n)
Receiving Stream: Niantic Bay via Settling Pond (Basin Code 2000)
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

NN. Discharge Serial No. 008
Monitoring Location: 1
Description: Unit No. 1 Non-Contaminated Floor Drains and Surface Water Runoff Including Water Washes and Clean Water Drains (Discharge Code 1080000)
Receiving Stream: Niantic Bay (Basin Code 2000)
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

(1) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Oil and Grease-T	70030-019	20.0 mg/l	Monthly (c)	Grab
Total Suspended Solids	00530-019	30.0 mg/l	Monthly	Grab

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring monthly required only when oil separator discharge occurs.

OO. Discharge Serial No. 009
Monitoring Location: 1
Description: Unit No. 2 Non-Contaminated Floor Drains, Fire Pump House Floor Drains, Water Washes, Clean Water Drains, and Surface Water Runoff (Discharge Code 1080000)
Receiving Stream: Long Island Sound via Quarry Cut
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

(1) The maximum limits specified below shall not be exceeded at any time.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Oil and Grease-T	70030-019	20.0 mg/l	Monthly (c)	Grab
Total Suspended Solids	00530-019	30.0 mg/l	Monthly	Grab

(a) The permittee shall record the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring monthly required only when oil separator discharge occurs.

PP. Discharge Serial No. 011
Description: Surface Water Runoff (Discharge Code 108000n)
Receiving Stream: Long Island Sound
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

QQ. Discharge Serial No. 012
Description: Surface Water Runoff Including Fire System Flush Water (Discharge Code 108000n)
Receiving Stream: Long Island Sound
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

RR. Discharge Serial No. 013
Description: Surface Water Runoff (Discharge Code 108000n)
Receiving Stream: Long Island Sound
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

SS. Discharge Serial No. 014
Description: Surface Water Runoff (Discharge Code 108000n)
Receiving Stream: Niantic Bay
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

TT. Discharge Serial No. 015
Description: Surface Water Runoff Including Waterwashes and Clean Water Drains (Discharge Code 108000n)
Receiving Stream: Niantic Bay
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

UU. Discharge Serial No. 016
Monitoring Location: 1
Description: Unit No. 2 Non-contaminated Floor Drains, Water Washes, Clean Water Drains, and Surface Water Runoff (Discharge Code 1080000)
Receiving Stream: Niantic Bay
Present/Future Water Quality Standard: SA/SA
Flow: Intermittent

(1) The maximum concentrations specified below shall not be exceeded at any time.

Parameter	Code	Maximum Instant. Limits	Minimum Frequency of Sampling	Sample Type
Oil and Grease-T	70030-019	20.0 mg/l	Monthly (c)	Grab
Total Suspended Solids	00530-019	30.0 mg/l	Monthly	Grab

(a) The permittee shall record the total flow (Code 74076-007) and the number of hours of discharge (Code 81381-079) for each day of the sample collection and/or the instantaneous flow (Code 00058-078) at the time of grab sample collection.

(b) The report shall include a detailed explanation of any violations of the limitations specified above.

(c) Monitoring monthly required only when oil separator discharge occurs.

VV. Monitoring Site No. 01
Unit Nos. 1, 2, and 3 Intakes (Before Condensers)

Parameter	Code	Minimum Frequency of Sampling	Sample Type
Flow	74076-07	Hourly	Instantaneous
Temperature °F	00011-015	Hourly	Instantaneous
Total Copper	01042-028	Semiannual (a)	Daily Composite
Total Lead	01051-028	Semiannual (a)	Daily Composite
Total Nickel	01067-028	Semiannual (a)	Daily Composite
Total Zinc	01092-028	Semiannual (a)	Daily Composite
Ammonia - N	00610-028	Semiannual (a)	Daily Composite
Total Suspended Solids	00530-028	Semiannual (a)	Daily Composite
Surfactants Anionic	38260-028	Semiannual (a)	Daily Composite
Oil & Grease Total	70030-028	Semiannual (a)	Grab

(a) Concurrent with April and October toxicity testing in accordance with Paragraphs 3.B.(6)(b), 3.J.(6)(b), and 3.V.(6)(b).

4. (a) On or before six months after issuance, submit for the review and approval of the Commissioner three (3) definitive (LC_{50}s) analyses of Discharge Serial Number 001C-4. These tests shall be conducted using daily composite samples of the discharge collected on separate weeks. Testing shall be conducted following the toxicity testing protocol for static acute toxicity tests in "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" (EPA 600/4-85/013) with the following specifications:

(i) Mysidopsis bahia (5 days old or less) and Cyprinodon variegatus (30 +/- 5 days old) shall be used as test organisms.

(ii) Synthetic or natural seawater adjusted to a salinity of 28-32 ppt shall be used as dilution water in the tests.

(iii) Test duration shall be 48 hours for Mysidopsis bahia and 96 hours for Cyprinodon variegatus..

(iv) Each sample shall be analysed for the following parameters: chromium, copper, lead, nickel, zinc, iron, magnesium, manganese, cyanide amenable and total, total oil and grease, total suspended solids, total residual chlorine, COD, surfactants and ammonia.

(b) (i) In determining LC_{50} values, five (5) test concentrations, in duplicate, shall be utilized.

(ii) The LC_{50} value shall be determined by the computational method (Binomial Distribution, Probit Analysis, Moving Average Angle, Spearman-Karber) which yields the smallest 95% confidence interval and LC_{50} value which is consistent with the dose-response data.

(iii) Any test in which the survival of test organisms is less than ninety (90) percent in each replicate control test chamber or failure to achieve test conditions as specified in Section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies, such as maintenance of appropriate environmental controls, shall constitute an invalid test and will require immediate retesting. Failure to submit valid test results constitutes a permit violation.

5. The permittee shall conduct or continue to conduct biological studies of the supplying and receiving waters, entrainment studies, and intake impingement monitoring. The studies shall include studies of intertidal and subtidal benthic communities, finfish communities, and entrained plankton and shall include detailed studies of lobster populations and winter flounder populations.

6. On or before July 31, 1993 and annually thereafter, submit for the review and approval of the Commissioner a detailed proposal for continuing biological studies, entrainment studies, and impingement monitoring as required by paragraph 5.

7. On or before April 30, 1993 and annually thereafter submit for the review and approval of the Commissioner a detailed report of the ongoing biological studies as required by paragraph 5 and as approved under paragraph 6.

8. On or before January 31, 1993 submit for the review and approval of the Commissioner a report on alternatives to reduce entrainment of winter flounder larvae in accordance with "Scope of Work for Cooling Water Alternatives Feasibility Study to Reduce Larval Winter Flounder Entrainment, May 1992."

9. (a) On or before February 28, 1993, submit for the review and approval of the Commissioner a scope of study for investigating the impact of this facility's macrofouling control practices on Niantic Bay. At a minimum, the scope shall include:

(i) A proposal to determine the area in which chlorine can be detected and the duration of the impact.
(ii) A proposal to determine the mixing characteristics of chlorine from the condenser cooling water discharge with the receiving water.

(b) On or before November 30, 1993, submit for the review and approval of the Commissioner, a final report describing the results of the Impact Analysis Study conducted according to the approved scope of study.

10. On or before June 30, 1993 submit for the review and approval of the Commissioner a scope of study report to investigate minimization of the use and discharge of ethanolamine at Unit No. 2.

11. On or before June 30, 1994 submit for the review and approval of the Commissioner an engineering report on minimization of the use and discharge of ethanolamine at Unit No. 2 in accordance with Paragraph 10 above. The report shall include specific recommendations and a schedule for implementation.

This permit shall expire on December 14, 1997.

The permittee shall comply with the following sections of the Regulations of Connecticut State Agencies which are hereby incorporated into this permit:

Section 22a-430-3 General Conditions

(a)Definitions
(b)General
(c)Inspection and Entry
(d)Effect of a Permit
(e)Duty
(f)Proper Operation and Maintenance
(g)Sludge Disposal
(h)Duty to Mitigate
(i)Facility Modifications; Notification
(j)Monitoring, Records and Reporting Requirements
(k)Bypass
(l)Conditions Applicable to POTWs
(m)Effluent Limitation Violations (Upsets)

47

(n)Enforcement
(o)Resource Conservation
(p)Spill Prevention and Control
(q)Instrumentation, Alarms, Flow Recorders
(r)Equalization

22a-430-4 Procedures and Criteria

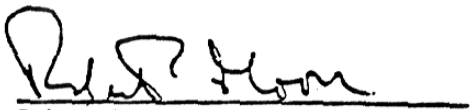
(a)Duty to Apply
(b)Duty to Reapply
(c)Application Requirements
(d)Preliminary Review
(e)Tentative Determination
(f)Draft Permits, Fact Sheets
(g)Public Notice, Notice of Hearing
(h)Public Comments
(i)Final Determination
(j)Public Hearings
(k)Submission of Plans and Specifications. Approval.
(l)Establishing Effluent Limitations and Conditions
(m)Case by Case Determinations
(n)Permit Issuance or Reneval
(o)Permit Transfer
(p)Permit Revocation, Denial or Modification
(q)Variances
(r)Secondary Treatment Requirements
(s)Treatment Requirements for Metals and Cyanide
(t)Discharges to POTWs - Prohibitions

Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(6), (j)(9)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of Section 22a-430-3.

This Permit requires the payment of an annual compliance determination fee as set forth in Section 22a-430-7 of the Regulations of Connecticut State Agencies.

The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Clean Water Act or the Connecticut General Statutes or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Clean Water Act or Connecticut General Statutes or regulations adopted thereunder which are then applicable.

Entered as a Permit of the Commissioner on the 14th day of December, 1992.



Robert E. Moore
Deputy Commissioner

APPLICATION NO. 89-379
PERMIT ID. CT0003263
ORDER ID. WC