



**Entergy Nuclear Generation Company**  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360

**J. F. Alexander**  
Director  
Nuclear Assessment

December 1, 1999  
ENG C Ltr. 5.99.130

Mr. Kevin McSweeney, Chief  
Compliance Branch  
U.S. Environmental Protection Agency  
J.F.K. Federal Bulding  
Boston, MA 02203  
ATTN: Ms. Olga Vergara

**RE: NPDES Permit Renewal Application - Pilgrim Station**

Dear Mr. McSweeney:

As requested in Linda M. Murphy's letter of September 10, 1999, Entergy Nuclear Generation Company (ENG C) hereby provides EPA New England with an updated National Pollutant Discharge Elimination System (NPDES) Permit application for Pilgrim Nuclear Power Station (NPDES #MA0003557), which supersedes the previously submitted October 25, 1995 application. This updated application reflects the change in ownership of Pilgrim Station (consistent with our July 7, 1999, written request for transfer of the permit, a copy of which is enclosed) and includes proposed revisions to the permit as detailed below.

The Company is actively pursuing (with Regional Council Mark Stein), and we understand EPA is seriously considering, the possibility of bifurcating the §316 and permit processes. Accordingly, and unless EPA indicates otherwise, §316(a) demonstration materials will be submitted concurrent with the §316(b) demonstration in March, 2000.

This application is being submitted in accordance with the Consolidated Permits Regulations under Title 40, Code of Federal regulations, Parts 122, 124, and 125 using Consolidated Permits Application Forms 1, 2C and 2f. Comments are noted below:

- 1) Consistent with Boston Edison Company's renewal applications in 1990 and 1995, ENG C provides the following requests and information regarding the renewal of this application:
  - A. Outfalls 001 (Condenser Cooling Water), 002 (Thermal Backwash), and 010 (Plant Service Cooling Water) are once-through discharge points whose sole source of water is Cape Cod Bay. Outfalls 003 (Intake Screen Wash) and 008 (Sea Foam Suppression) utilize Bay water and/or Plymouth town water. The pollutants listed in Parts B and C of Item V are not expected to be present for these discharge points, except for ambient levels. Therefore, we request that the sampling requirements for these pollutants, at these outfalls, be suspended. We also request that sampling/analysis be waived for BOD, COD, TOC, TSS, and ammonia at 001, 002, 003, 008, and 010 outfalls, which are non-process discharges whose water source is classified as SA quality or potable water and are, therefore, not expected to influence these parameters.

COOL

599130

PPL ADOCH 0500 0293

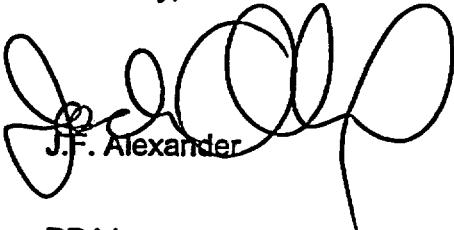
- B. For outfall numbers 001, 002, 003, 008, and 010, appropriate analyses have been performed to identify potential constituents above background levels. No chemicals are added to outfalls 002 or 008. For outfall number 001, the discharge is treated with chlorine only which is required to be monitored and not exceed 0.1 ppm TRO. For outfall #003, only sodium thiosulfate is added as a dechlorination agent, and only chlorine is added to outfall #010 with chlorination monitoring required to maintain permit limits of 0.5 ppm monthly average and 1.0 ppm daily maximum TRO, prior to mixing with condenser cooling waters. Analyses for cobalt, iron, and titanium were performed for outfall numbers 001, 002, and 010 because there was a possibility of these constituents being present. An analysis for sulfate was performed for outfall number 003 because of the sodium thiosulfate addition. Protocol references and sampling strategies are noted in Attachment A.
  - C. For all outfalls in Item V Parts B and C, we have marked an "X" in the "believed present" or "believed absent" column for pollutants potentially contributed by Pilgrim Station operations.
  - D. All temperature and pH data were taken from actual historical operating data using continuous monitors rather than from grab samples.
- 2) The following changes previously have been approved by EPA since the last renewal application and should be incorporated into the new permit:
- A. A modification of the Pilgrim Station NPDES Permit was approved and issued (effective August 30, 1994) for various discharge changes.
  - B. A letter from EPA to Boston Edison dated June 30, 1995, approved the use of Tolytriazole, a corrosion inhibitor, in various Pilgrim Station systems.
  - C. EPA approved, subject to annual review, removal of the PNPS discharge canal fish barrier net on November 23, 1994 (BECo Letter 5.94.119).
  - D. Two daily, manual grab samples of SSWS continuous chlorination were approved by EPA in lieu of continuous chlorination monitoring on August 26, 1998 (BECo Letter 5.98.087).
  - E. On October 1, 1998 (BECo Telecon 4.98.009), EPA approved the discharge of heating system/demineralized water to PNPS storm drain #005.
- 3) During the 1995 permit renewal application process, a miscellaneous storm drain located at the boat launch area between storm drain outfalls 006 and 007 was identified. It drains a small portion of the facility which is physically similar to the drainage areas for outfalls 004, 005, 006, and 007. The relatively small volume of stormwater runoff from its limited drainage area is expected to be similar in makeup to runoff from the other four outfalls' larger drainage areas. The miscellaneous storm drain discharge will not enter Cape Cod Bay due to distance and terrain topography surrounding it, except during extreme meteorological conditions and, therefore, should not be included as a permitted outfall. A sampling waiver for the miscellaneous outfall is requested.

- 4) Pilgrim Station discharges in the coastal zone comply with the policies of the Massachusetts approved coastal management program and are/have been conducted in a manner consistent with such policies.
- 5) In addition to the above, Pilgrim Station is proposing certain modifications to the existing permit which better reflect current station operations. Please refer to Attachment B entitled "Proposed Pilgrim Permit Modifications".

I trust that these additional comments will meet your requirements and that our application is complete.

If you have any questions, please contact Mr. Robert D. Anderson of my staff at (508) 830-7935.

Sincerely,



J.F. Alexander

RDA/sc

cc: Massachusetts Department of Environmental Protection  
Regulatory Branch - 7th Floor  
One Winter Street  
Boston, MA 02108

Massachusetts Coastal Zone Management  
100 Cambridge Street, Floor 20  
Boston, MA 02202

U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Senior Resident Inspector  
Pilgrim Station

ATTACHMENT A



Consulting • Engineering • Remediation

35 Nagog Park  
Acton, MA 01720  
(508) 635-9500  
FAX (508) 635-9180

September 19, 1995

ENSR Ref. No: 0970-013  
ENSR Doc. No: 550-JWJ-700

Mr. Robert D. Anderson  
Principal Marine Biologist  
Regulatory Affairs and Emergency Preparedness  
Boston Edison Company  
Pilgrim Nuclear Power Station  
800 Rocky Hill Road  
Plymouth, MA 02360-5599

Dear Mr. Anderson:

ENSR is pleased to submit this letter in support of the NPDES permit renewal package for the Pilgrim Nuclear Power Station (NPDES # MA0003557). ENSR has assisted Boston Edison in this effort by coordinating the collection and analysis of discharge samples at selected locations, preparing analytical reports and completing the EPA NPDES permit renewal application materials (i.e. Forms 1 and 2C).

ENSR's subcontractor, Thermo Analytical (TMA) Services performed all analytical services. TMA is fully certified to perform all the required analyses using analytical methods and quality assurance/quality control protocols (or equivalent methods) consistent with state and federal requirements. In addition, ENSR performed its own quality assurance review on the analytical results. Each analysis was performed within the protocols established in the following references:

- Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020); USEPA, Cincinnati, OH.
- Standard Methods for the Examination of Water and Wastewater; American Public Health Association, Washington, D.C.
- Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act (40 CFR Part 136).
- Test Methods for Evaluating Solid Wastes, SW-846, USEPA, Office of Solid Waste and Emergency Response, Washington; Third Edition.

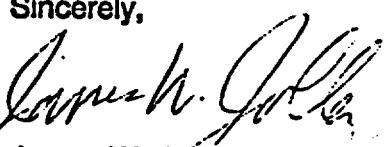
The exact method references, sampling, preparation, analytical dates, quality assurance/quality control and reporting limits are contained within the ENSR analytical

**ENSR**

report entitled "Sampling and Analysis of Wastewater, NPDES Monitoring for the Pilgrim Nuclear Power Station".

Please contact us if there are any questions regarding the permit renewal application and the analyses performed to complete it.

Sincerely,



James W. Jolley

Project Manager

## ATTACHMENT B

### **PROPOSED PILGRIM PERMIT MODIFICATIONS**

#### **PART A, Item 1.f**

- Delete statement "There shall be no discharge of treated or untreated chemicals which result from cleaning or washing of condensers or equipment wherein heavy metals may be discharged." There are no discharges associated with metal cleaning operations at Pilgrim Station.

#### **PART A, Item 1.g**

- Delete PART A, Item 1.g regarding the rate of change of Delta T at Outfall 001. Pilgrim's 316 Supplemental Assessment (9/77) indicated that thermal effects were less than those predicted, and no significant adverse impacts were occurring. In addition, it was shown that the thermal discharge was quickly dissipated via dilution from Cape Cod Bay, thereby minimizing the potential of adverse affects. This supplemental demonstration along with years of proven operational experience and monitoring program findings, support the conclusion that the thermal discharge has minimal affect on the environment. The wording regarding a reactor emergency shutdown should be retained.

#### **PART A, Item 1.h**

- Change the wording to state: "The thermal plume from the station shall conform to §316(a), 33 U.S.C. §1326(a).

#### **PART A, Item 1.i**

- In the second line of the paragraph, add the words: "and regulated by" just prior to the words: "the Nuclear Regulatory Commission".

#### **PART A, Item 1.m**

- Delete the statement regarding the discharge of sodium pentaborate in its entirety and add a maximum boron limit of 1.0 mg/l (above background) by calculation when discharging to Outfall 001 (insert limit in Part A, Item 2 of the Permit). This requirement is based on best professional judgment (BPJ) and is intended not to increase the natural boron background concentrations in the final Outfall 001 discharge above 1.0 mg/l. Placing a boron limit on Outfall 001, when discharging, will still ensure that the intent of the requirement is met and that appropriate discharge flows are maintained. Therefore, the water quality of the receiving water will not be significantly affected. In addition, this change will allow plant operations to be conducted more efficiently.

#### **PART A, Item 1.n**

- Delete the statement regarding the discharge of sodium nitrite in its entirety and add a maximum sodium nitrite limit of 2.0 mg/l by calculation when discharging to Outfall 001 (insert limit in Part A, Item 2 of the Permit). Placing a sodium nitrite limit on Outfall 001 will still ensure that this requirement, which is based on best professional judgment (BPJ), is met and that appropriate discharge flows are maintained. Therefore, the water quality of the receiving water will not be significantly affected. In addition, this change will allow plant operations to be conducted more efficiently.

## PART A, Item 1.o

- Delete the statement regarding sand removal and replace with the following:

"Pursuant to CWA §404(f)(1)(B), sand and sediment from the concrete surfaces of the intake structure may be removed and disposed of on land. Such maintenance activities shall be reported in the appropriate DMR."

## PART A, Item 1.p (Add)

- Tolytriazole may be discharged at a concentration not to exceed 0.05 mg/l after dilution. In unusual circumstances, when circulatory (seawater) pumps are not available, Tolytriazole may be discharged at a concentration not to exceed 2.5 mg/l after dilution.

## PART A, Item 2 (Outfall 001 – Condenser Cooling Water)

- Change average monthly flow limit of 447.0 mgd and maximum daily flow limit of 510.0 mgd to Report only. The average monthly flow limit of 447.0 mgd was placed in the Permit based on the water flow diagram submitted by Pilgrim. The maximum daily flow limit of 510.0 mgd was placed in the Permit based on information submitted by Pilgrim on pump operating capacities. Since total residual oxidants and temperature are the primary pollutants of concern at this outfall, and since 40CFR423 does not require flow limitations, removal of these limits is more consistent with applicable law, and will not significantly affect the water quality of the receiving water.
- Change the Sample type for Flow to Estimate, and change Sample type for Temperature and Temperature Rise to RTD to accurately reflect the measurement type.
- Per the above, add a maximum boron limit of 1.0 mg/l (above background) by calculation when discharging to accommodate Item 1.m deleted from PART A of the Permit. Add a footnote specifying that the limit only applies when discharging boron.
- Per the above, add a maximum sodium nitrite limit of 2.0 mg/l by calculation when discharging to accommodate Item 1.n deleted from PART A of the Permit. Add a footnote specifying that the limit only applies when discharging sodium nitrite.
- Delete "footnote b" regarding pH. Outfall 001 receives sources of other wastewater discharges from within the plant. Although the pH of these wastewaters are within the 40CFR423 limits of 6.0 and 9.0 prior to discharge, the potential exists for them to impact the intake water 0.5 s.u. variation. Should these wastewaters cause a variation of 0.5 s.u., then the Pilgrim facility would be in noncompliance with the Permit even though discharged wastewaters were meeting the limits outlined in 40CFR423. Therefore, removal of these limits is more consistent with applicable law and will not significantly affect the water quality of the receiving water.
- Delete "footnotes e and f." Gas bubble disease was documented only on two separate occasions in the 70's during the early stages of plant operations in a highly localized area. Two decades of subsequent operational experience has shown that fishes are minimally impacted by the discharge area. In addition, on an annual basis, in recent years the PATC has maintained that the fish barrier net is no longer needed at this location.

#### PART A, Item 3 (Outfall 002 – Thermal Backwash)

- Change maximum flow limit of 255.0 mgd to Report only. Discharges from this outfall are intermittent and the discharge flow rate is based on information submitted by Pilgrim on pump operating capacity. Since temperature is the primary pollutant of concern at this outfall, and since 40CFR423 does not address flow limitations, removal of this limit will not significantly affect the water quality of the receiving water.
- Change Sample Type for Temperature to RTD to accurately reflect measurement.
- Delete "footnote c" regarding pH. Although the wastewater used in the back washing process is within the 40CFR423 limits of 6.0 and 9.0 prior to discharge, the potential exists for it to impact the intake water 0.5 s.u. variation. Should this wastewater cause a variation of 0.5 s.u., then the Pilgrim facility would be in noncompliance with the Permit even though the discharged wastewater was meeting the limits outlined in 40CFR423. Therefore, deleting this footnote will not affect nor compromise the water quality of the receiving water since 40CFR423 limits will continue to be met.

#### PART A, Item 4 (Outfall 003 – Intake Screen Wash)

- Change average monthly and maximum daily flow limit from 4.1 mgd to Report only. These limits were placed in the Permit based on the water flow diagram submitted by Pilgrim. In addition, since flow from this outfall is intermittent and not continuous, average flow would not apply anyway. Since 40CFR423 regulations do not address flow limitations, removal of these limits will not affect nor compromise the water quality of the receiving water.
- Delete "footnote b" regarding temperature. Water from either Cape Cod Bay or the City of Plymouth is used when washing the screens. Although water from Cape Cod Bay will be the same temperature as the intake water, a potential does exist for the temperature of the Plymouth Town water to vary from that of the intake water. This variation, if any, is expected to be small and would pose no risk to water quality. Therefore, since no significant temperature variations are expected during this process, eliminating this requirement will not significantly affect the water quality of the receiving water.
- Revise "footnote c" to read as follows: "The Cape Cod Bay Marine water used in the screen washing is to be dechlorinated prior to injection. Station Fire Water shall be used only during emergency conditions when the screen operation is impeded by accumulation of algae or other biological material. The Nuclear Regulatory Commission (NRC) must approve the use of Station Fire Water as consistent with the overall station safety requirements."

This requested revision still meets the intent of the requirement and will not affect or compromise the water quality of the receiving water.

- Delete "footnote e" regarding pH. Although the Station Fire Water used in the screen washing process is within the 40CFR423 limits of 6.0 and 9.0 prior to use, the potential exists for it to impact the intake water 0.5 s.u. variation. Should this wastewater cause a variation of 0.5 s.u., then the Pilgrim facility would be in noncompliance with the Permit even though the Station Fire Water was meeting the limits outlined in 40CFR423. Therefore, deleting this footnote will not affect nor compromise the water quality of the receiving water since 40CFR423 limits will continue to be met.

## PART A, Item 4a (Outfall 008 – Sea Foam Suppression)

- Change average monthly and maximum daily flow limit from 0.73 mgd to Report only. These limits were placed in the Permit based on the water flow diagram submitted by Pilgrim. In addition, since flow from this outfall is intermittent and not continuous, averages do not apply anyway. Since 40CFR423 regulations do not address flow limitations, removal of these limits will not affect nor compromise the water quality of the receiving water.
- Delete "footnote b" regarding temperature. The potential exists for the temperature of the Station Fire Water to vary slightly from that of the intake water. This variation, if any, is expected to be small and would pose no risk to water quality. Therefore, since no significant temperature variations are expected during this process, eliminating this requirement will not affect nor compromise the water quality of the receiving water.
- Delete the first two sentences in "footnote c". Station Fire Water is the identified water source in the permit application that would be used as a sea foam suppressant at this outfall. Although the footnote correctly states that the water is to be used only during emergency conditions, Pilgrim is required by NEPA #20 and the American Nuclear Insurers to periodically test each fire pump up to 150% of their capacity. These periodic tests will result in discharges into the intake structure and may or may not occur during emergency conditions. Since Station Fire Water is the approved sea foam suppressant, the use of it during emergency conditions (foaming) or during non-emergency conditions (test discharges) conditions will not compromise water quality.
- Delete "footnote d" regarding pH. Although the Station Fire Water used in the screen washing process is within the 40CFR423 limits of 6.0 and 9.0 prior to use, the potential exists for a 0.5 s.u. variation. Should there a 0.5 s.u. variation occur, then the Pilgrim facility would be in noncompliance with the Permit even though the Station Fire Water was meeting the limits outlined in 40CFR423. Therefore, deleting this footnote will not affect nor compromise the water quality of the receiving water since 40CFR423 limits will continue to be met.

## PART A, Item 5 (Outfall 010 – Plant Service Cooling Water)

- Delete the average monthly flow limit of 19.4 mgd and add Report to maximum daily flow limit. The average monthly flow limit was placed in the Permit based on the water flow diagram submitted by Pilgrim. Since 40 CFR 423 regulations do not address flow limitations, removal of these limits will not affect nor compromise the water quality of the receiving water.
- Change the Sample Type for Flow to Estimate and for Total Residual Oxidants to Grab. Change the Measurement Frequency for TRO to twice daily.

## PART A, Item 5.c (Delete)

## PART A, Item 6.a (Outfall 011 – Neutralizing Sump Waste)

- Delete average monthly flow limit of 0.015 mgd and change the maximum daily flow limit of 0.06 mgd to Report only. The average monthly flow limit was placed in the Permit based on the water flow diagram submitted by Pilgrim. The maximum daily flow limit was placed in the Permit based on information submitted by Pilgrim on discharge capacities. Since flow from this outfall is intermittent and not continuous, averages do

not apply. Placing a flow limit on this outfall could have the potential to restrict plant operations since plant modifications can affect discharge flow rates (without a corresponding water quality benefit). Since 40CFR423 regulations do not address flow limitations, removal of these limits will not significantly affect the water quality of the receiving water.

- Change Sample Type for Flow to Estimate
- Delete the total suspended solid average monthly limit of 30 mg/l. Flow from this outfall is intermittent and not continuous. Therefore averages do not apply.

#### **PART A, Item 6.b**

- Change pH limits to 6.0 and 9.0 for consistency with 40 CFR 423.

#### **PART A, Item 7.a (Outfalls 004, 005, 006 and 007 – Stormwater)**

- Delete the total suspended solid average monthly limit of 30 mg/l. Flow from this outfall is intermittent and not continuous. Therefore averages do not apply.

#### **PART A, Item 7.i**

- Add neutralizing sump waste and heating system effluent to #005 (drain) inputs.

#### **PART A, Item 7.J (Add)**

"When discharging low volume wastewaters, discharge must be within pH, TSS and oil & grease parameters established for stormwater. Reports of these discharges are to be included in the Discharge Monitoring Report."

#### **PART A, Item 7.k (Add)**

"The miscellaneous storm drain is exempt from water quality sampling requirements under the Permit since the stormwater drainage does not reach Cape Cod Bay except under extreme meteorological conditions."

#### **PART A, Item 8.d**

- Delete last sentence of this section which refers to the Pilgrim Technical Advisory Committee.

#### **PART A, Item 8.f (Add)**

- During storm periods, or when operation of the Station is compromised, impinged organisms and debris may be directed to the discharge canal to prevent operational problems associated with high intake loadings.
- All seawater used in washing the intake screens shall be dechlorinated before use, with the exception of sluice water returned directly to the discharge canal. During storm conditions when both circulating (seawater) pumps are in operation, dechlorination of screenwash water sent to the discharge canal may be discontinued because there is adequate discharge canal dilution to assure that residual oxidants released to Cape Cod Bay are within Permit limits.

<b>FORM 1 GENERAL</b>	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)</b>		<b>EPA I.D. NUMBER</b> <b>F MA0003557</b>		
LABEL ITEMS					
I. EPA I.D. NUMBER		PLEASE PLACE LABEL IN THIS SPACE			
III. FACILITY NAME					
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					
II. POLLUTANT CHARACTERISTICS					
<b>INSTRUCTIONS:</b> Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any question, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.					
<b>SPECIFIC QUESTIONS</b> A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) B. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or E above? (FORM 2C) C. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) D. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) E. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 6)		<b>MARK TO YES OR NO ATTACHED</b> X X X X X	<b>SPECIFIC QUESTIONS</b> F. Does or will this facility either existing or proposedly include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) G. Is this a proposed facility other than those described in A or B above which will result in a discharge to waters of the U.S.? (FORM 2D) H. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) I. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may effect or be located in an attainment area? (FORM 6)		<b>MARK TO YES OR NO ATTACHED</b> X X X X X
<b>III. NAME OF FACILITY</b> 1. <b>PILGRIM NUCLEAR POWER STATION</b>					
<b>IV. FACILITY CONTACT</b> A. NAME & TITLE (last, first, & middle) 2. WILLIAM DICROCE, PLANT MANAGER					
B. PHONE (area code & no.) 508 830 8100					
<b>V. FACILITY MAILING ADDRESS</b> A. STREET OR P.O. BOX 3. 600 ROCKY HILL ROAD					
B. CITY OR TOWN 4. PLYMOUTH					
C. STATE 5. MA					
D. ZIP CODE 6. 02360					
<b>VI. FACILITY LOCATION</b> A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER 5. ROCKY HILL ROAD					
B. COUNTY NAME 6. PLYMOUTH					
C. CITY OR TOWN 6. PLYMOUTH					
D. STATE 6. MA					
E. ZIP CODE 6. 02360					
F. COUNTY CODE 6. 00000					

**GENERAL INSTRUCTIONS**  
 If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area/s below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

## CONTINUED FROM THE FRONT

## VII. SIC CODES (4-digit, in order of priority)

## A. FIRST

7 4911 (specify): generation, transmission and distribution of electricity  
 12 12 12 12

## B. SECOND

7 (specify):  
 12 12 12 12

## C. THIRD

7 (specify):  
 12 12 12 12

## D. FOURTH

## VIII. OPERATOR INFORMATION

## A. NAME

8 ENTERGY NUCLEAR GENERATION COMPANY  
 12 12

Is the name listed in Item VIII-A the owner?  
 YES  NO  
 12 12

## C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL  
 S = STATE  
 P = PRIVATE

M = PUBLIC (other than federal or state)  
 O = OTHER (specify)

(specify):  
 P  
 M

## D. PHONE (area code &amp; no.)

E	A	1	1	1	1	1
12	12	64 - 88	88 - 92	92 - 96	96 - 98	98 - 99

## E. STREET OR P.O. BOX

600 ROCKY HILL ROAD  
 12

## F. CITY OR TOWN

8 PLYMOUTH  
 12 12

## G. STATE

MA 02360  
 12 12 12 12

## H. ZIP CODE

Is the facility located on Indian lands?  
 YES  NO  
 12 12

## I. EXISTING ENVIRONMENTAL PERMITS

## A. NPDES (Discharges to Surface Water)

9 N MA0003557  
 12 12 12 12

## D. PSD (Air Emissions from Proposed Sources)

9 P  
 12 12 12 12

## B. UIC (Underground Injection of Fluids)

9 U  
 12 12 12 12

## E. OTHER (specify)

(specify):  
 9  
 12 12 12 12

## C. RCRA (Hazardous Waste)

9 R  
 12 12 12 12

## E. OTHER (specify)

(specify):  
 9  
 12 12 12 12

## XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

## XII. NATURE OF BUSINESS (provide a brief description)

Entergy Nuclear Generation Company is a privately owned electric utility engaged in the generation, transmission, and distribution of electrical energy.

## XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

## A. NAME &amp; OFFICIAL TITLE (type or print)

Mr. M. Bellamy  
 Site Vice President

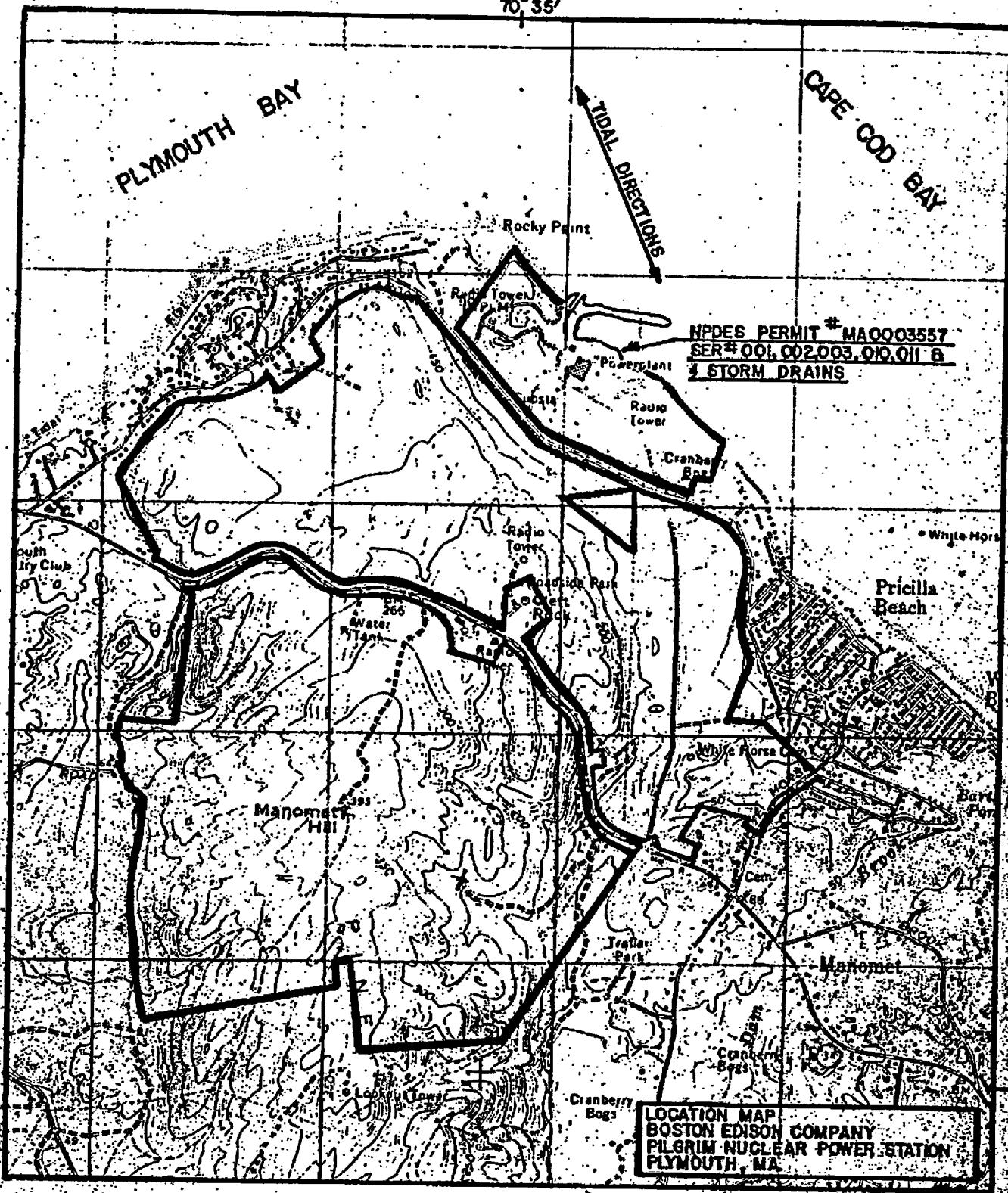
## B. SIGNATURE

## C. DATE SIGNED

04/19/99

## COMMENTS FOR OFFICIAL USE ONLY

C  
 12 12



SCALE 1:25 000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

.5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

MN GN  
15½ MILS  
276 MILS  
103  
19 MILS

N GRID AND 1974 MAGNETIC NORTH  
RECLINATION AT CENTER OF SHEET

MANOMET, MASS.  
N41°52.5' - W70°30' / 7.6

1977

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MA 0003557OMB No. 2040-0085  
Approval expires 5-31-92FORM  
**2G**  
NPDES

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE POLLUTANTS**  
**EXISTING MANUFACTURING, COMMERICAL, AND INDUSTRIAL OPERATIONS**  
**Consolidated Permits Program**

**L. OUTFALL LOCATION**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

X. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	E. SEC.	S. MIN.	S. SEC.	E. SEC.	S. MIN.	S. SEC.	
001	41°	56'	30	70°	35'	00	Cape Cod Bay
002	41°	56'	30	70°	35'	00	Cape Cod Bay
003	41°	56'	30	70°	35'	00	Cape Cod Bay
004	41°	56'	30	70°	35'	00	Cape Cod Bay
005	41°	56'	30	70°	35'	00	Cape Cod Bay
006	41°	56'	30	70°	35'	00	Cape Cod Bay

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any source of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

E. OUTFALL NUMBER (list)	B. OPERATION(S) CONTRIBUTING FLOW		C. DESCRIPTION	D. LIST CODES FROM TABLE 2C-1	
	B. OPERATION (list)	B. AVERAGE FLOW (Include units)		D. LIST CODES FROM TABLE 2C-1	D. LIST CODES FROM TABLE 2C-1
001	Condenser Cooling Water	447 MGD	Chlorine	2	F
			Ocean Discharge through Outfall	4	B
002	Thermal Backwash for Bio-fouling	224 MGD	None	X	X
	Control		Ocean Discharge through Outfall	4	B
003	Intake Screen Wash (Fish Sluice Water)	4.10 MGD	Dechlorination	2	E
			Ocean Discharge through Outfall	4	B
004	Storm Drain	2,379 GPM	None	X	X
		(Peak Runoff)	Ocean Discharge through Outfall	4	B
			-10-Year Storm of 1.5 inches/hr for 1 hr		
			-Rational Method (Q=ciA)		
005	Storm Drain	1,212 GPM			
	-Station Heat Drainage	(Peak Runoff)	Ocean Discharge through Outfall	4	B
	-Hydrogen Scrubber Discharge		-10-Year Storm of 1.5 inches/hr for 1 hr		
	-Deminerilizer Reject Water		-Rational Method (Q=ciA)		
006	Storm Drain	812 GPM	None	X	X
		(Peak Runoff)	Ocean Discharge through Outfall	4	B
			-10-Year Storm of 1.5 inches/hr for 1 hr		
			-Rational Method (Q=ciA)		

OFFICIAL USE ONLY (effluent guidelines sub-categories)

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MA 0003557UIC NO. 2040-0085  
Approval expires 5-31-92FORM  
**2B**  
NPDES

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE POLLUTANTS**  
**EXISTING MANUFACTURING, COMMERCIAL MINING AND AGRICULTURAL OPERATIONS**  
**Consolidated Permits Program**

**L. OUTFALL LOCATION**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
007	41°	56'	30	70°	35'	00	Cape Cod Bay
008	41°	56'	30	70°	35'	00	Cape Cod Bay
010	41°	56'	30	70°	35'	00	Cape Cod Bay
011	41°	56'	30	70°	35'	00	Cape Cod Bay

Note: Coordinates are for Pilgrim Station. Outfalls are in different locations within 15 seconds of each other.

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

I. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		4. LIST CODES FOR TABLE 2C-1
	4. OPERATION (list)	5. AVERAGE FLOW (include units)	6. DESCRIPTION	7. TREATMENT	
007	Storm Drain	5,819 GPM	None		X X
		(Peak Runoff)	Ocean Discharge through Outfall	4 B	
			-10-Year Storm of 1.5 inches/hr for 1 hr		
			-Rational Method (Q=ciA)		
008	Sea Foam Suppression Discharge	0.73 MGD	None		X X
			Ocean Discharge through Outfall	4 B	
010	Plant Service Cooling Water	19.4 MGD	Chlorine	2 F	
			Ocean Discharge through Outfall	4 B	
011	Neutralizing Sump Waste	0.015 MGD	Neutralizing	2 K	
			Ocean Discharge through Outfall	4 B	

OFFICIAL USE ONLY (effluent guidelines sub-categories)

## CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B Intermittent or seasonal?  
 YES (complete the following table)       NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION, CONTRIBUTING FLOW (specify)	3. FREQUENCY		4. FLOW				5. DURATION (in days)
		A. DAYS PER WEEK (specify)	B. MONTHS PER YEAR (specify average)	C. FLOW RATE (in MGD)	D. TOTAL VOLUME (specify with units)	E. LONG TERM AVERAGE	F. MAXIMUM DAILY	
002	Thermal Backwash for Bio-fouling Control	1	8	224	224 MGD	224 MGD	255	4 hrs/day
003	Intake Screen Wash (Fish Sluice Water)	7	12	4.1	4.1 MGD	4.1 MGD	4.1 MGD	6 hrs/day
008	Sea Foam Suppression Discharge	1	8	0.73	0.73 MGD	0.73 MGD	0.73 MGD	2 hrs/day
011	Neutralizing Sump Waste	1	12	0.015	0.015 MGD	0.015 MGD	0.06	2 hrs/day

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?  
 YES (complete Item III-B)       NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production for other measure of operation?  
 YES (complete Item III-C)       NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.  
 YES (complete the following table)       NO (go to Item IV-B).

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLETION DATE	
			A. IN	B. PROJ. DATES

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs for other environmental projects which may affect your discharges you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.  MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

## V. INTAKE AND EFFLUENT CHARACTERISTICS

- A, B, & C: See instructions before proceeding - Complete one set of tables for each item A, B, & C. Parts V-A, V-B, and V-C are included in the instructions.
- NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-A, V-B, and V-C.
- D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe to be present and may be discharged from any outfall. For every pollutant you list, briefly describe the source(s) of pollutant, its amount and report any analytical data in your possession.

**NPDES PERMIT REACHAWL  
APPLICATION**

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

YES (list all such pollutants below)

NO (go to Item VI-B)

## CONTINUED FROM THE FRONT

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

YES (Identify the test(s) and describe their purposes below)

NO (go to Section VIII)

## VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Thermo Analytical	300 Second Avenue Waltham, MA 02254	(617) 890-7200	All Analyses except TSS, TRO, Boron (These analyses performed at PNPS Chemistry Laboratory)

## IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)

Mr. M. Bellamy  
Site Vice President

C. SIGNATURE

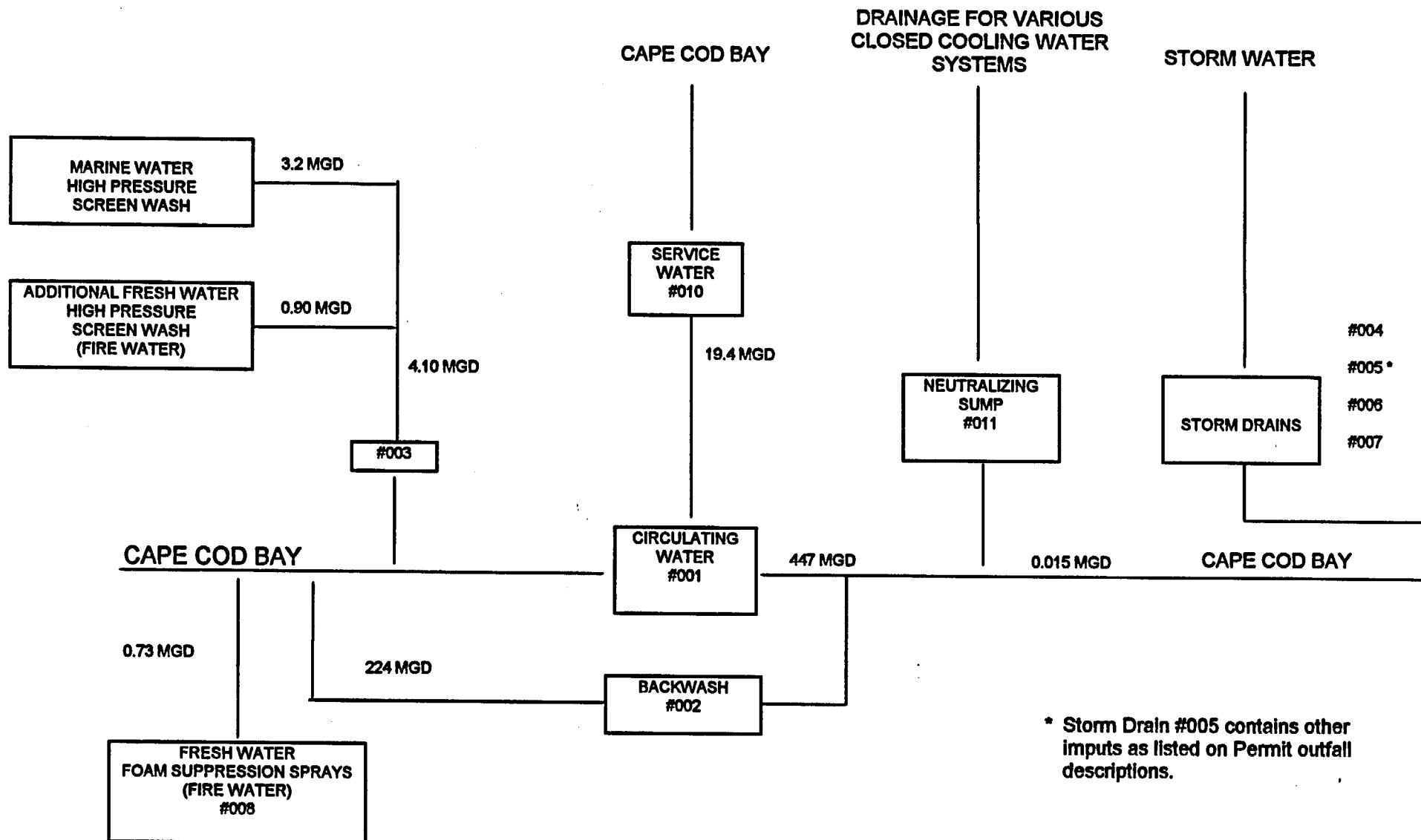
B. PHONE NO. (area code & no.)

(508) 830-8100

D. DATE SIGNED

12/11/99

**WATER FLOW DIAGRAM**  
**PILGRIM NUCLEAR POWER STATION**  
**PLYMOUTH, MA**



PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

MA 0003557

OUTFALL NO  
001

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)	4. INTAKE (optional)			
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVE. VALUE (if available)			d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
a. Biochemical Oxygen Demand (BOD)											
b. Chemical Oxygen Demand (COD)											
c. Total Organic Carbon (TOC)											
d. Total Suspended Solids (TSS)											
e. Ammonia (as N)											
f. Flow	VALUE 510	VALUE	VALUE	VALUE	*	MGD	VALUE				
g. Temperature (winter)	VALUE 23	VALUE	VALUE	VALUE	*	°C	VALUE				
h. Temperature (summer)	VALUE 35	VALUE	VALUE	VALUE	*	°C	VALUE				
i. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM	*	STANDARD UNITS					

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	b. REG. NO. (if available)	c. PERMITTED AMOUNT (if available)	d. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVE. VALUE (if available)		d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X													
b. Chlorine, Total Residual	X	0.09	174	0.09	174	0.02	38.16	9	MG/L	KG				
c. Color	X													
d. Faecal Coliform	X													
e. Fluoride (10934-48-8)	X													
f. Nitrate-Nitrite (as N)	X													

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if applicable)	2. MARK "X"	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		B. MAXIMUM DAILY VALUE		C. MAXIMUM 30 DAY VALUE		D. LONG TERM AVEG. VALUE (if available)			A. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	
e. Nitrogen, Total Organic (as N); (7723-14-0)	X										
f. Oil and Grease	X										
g. Phosphorus (as P), Total (7723-14-0)	X										
h. Radioactivity											
(1) Alpha, Total	X										
(2) Beta, Total	X										
(3) Radium, Total	X										
(4) Radium 226, Total	X										
i. Sulfate (as SO <sub>4</sub> ) (14088-78-9)	X										
j. Sulfide (as S)	X										
m. Sulfite (as SO <sub>3</sub> ) (14288-48-3)	X										
n. Sulfuric Acid	X										
o. Aluminum, Total (7429-90-5)	X										
p. Barium, Total (7440-39-5)	X										
q. Boron, Total (7440-42-8)	X										
r. Cobalt, Total (7440-48-9)	X	<0.010						1	MG/L	KG	
s. Iron, Total (7439-89-6)	X	0.0875	169					1	MG/L	KG	
t. Magnesium, Total (7439-95-4)	X										
u. Molybdenum, Total (7439-98-7)	X										
v. Manganese, Total (7439-96-5)	X										
w. Tin, Total (7440-31-6)	X										
x. Thallium, Total (7440-32-6)	X										

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 001

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C** - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess believe is absent. If you mark column 2a for any pollutant you know or have reason to believe is present, Mark "X" in column 2-c for each pollutant you of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (of 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER. (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. TESTED YES NO SOME PART ONLY	B. DO NOT TEST YES NO SOME PART ONLY	C. DO NOT SUBMIT YES NO SOME PART ONLY	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION	F. NO. OF ANALYSES	G. CONCENTRATION	H. MASS	I. LONG TERM AVERAGE VALUE (1) CONCENTRATION	J. NO. OF ANALYSES				
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M. Arsenic, Total (7440-38-0)		X													
2M. Arsenic, Total (7440-38-0)		X													
3M. Beryllium, Total, 7440-41-7)		X													
4M. Cadmium, Total (7440-43-6)		X													
5M. Chromium, Total (7440-47-3)		X													
6M. Copper, Total (7440-50-8)		X													
7M. Lead, Total (7439-92-1)		X													
8M. Mercury, Total (7439-97-6)		X													
9M. Nickel, Total (7440-02-0)		X													
10M. Selenium, Total (7782-49-3)		X													
11M. Silver, Total (7440-32-6)		X													
12M. Thallium, Total (7440-28-0)		X													
13M. Zinc, Total (7440-09-6)		X													
14M. Cyanide, Total (97-12-5)		X													
15M. Phenols, Total		X													
<b>DIOXIN</b>															
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)				DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (uppers)			
		D. 80- HR. AVG. CONC. PPM	D. 80- HR. MAX. CONC. PPM	E. MAXIMUM DAILY VALUE (1) CONCENTRATION PPM	E. MAXIMUM 30 DAY VALUE (1) CONCENTRATION PPM	F. LONG TERM AVERAGE VALUE (1) CONCENTRATION PPM	F. LONG TERM AVERAGE VALUE (1) CONCENTRATION PPM		G. NO. OF ANAL. YSES	H. CONCEN- TRATION	I. MASS	J. NO. OF ANAL. YSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>												
IV. Acetone (107-02-8)	X											
2V. Acrylonitrile (107-13-1)	X											
3V. Benzene (71-43-2)	X											
4V. Bis (Chloro- methyl) Ether (542-68-1)	X											
5V. Bromoform (75-25-2)	X											
6V. Carbon Tetrachloride (56-23-5)	X											
7V. Chlorobenzene (108-40-7)	X											
8V. Chlorodi- bromomethane (124-48-1)	X											
9V. Chloroethane (75-00-3)	X											
10V. 2-Chloro- ethoxyvinyl Ether (110-73-8)	X											
11V. Chloroform (67-66-3)	X											
12V. Dichloro- bromomethane (75-27-4)	X											
13V. Dichloro- difluoromethane (75-71-6)	X											
14V. 1,1-Dichloro- ethane (75-04-3)	X											
15V. 1,2-Dichloro- ethane (107-00-2)	X											
16V. 1,1-Dichloro- ethylene (75-38-4)	X											
17V. 1,2-Dichloro- propane (75-67-5)	X											
18V. 1,2-Dichloro- propane (142-78-6)	X											
19V. Ethybenzene (100-49-4)	X											
20V. Methyl Bromide (74-83-9)	X											
21V. Methyl Chloride (74-87-3)	X											

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MA 0003557OMB No. 2040-0085  
Approval expires 5-31-92FORM  
**2C**  
NPDES

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER**  
**EXISTING MANUFACTURING, COMMERCIAL, MINING AND SERVICE FACILITY OPERATION**  
**Consolidated Permit Program**

**I. OUTFALL LOCATION**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the water body.

A. OUTFALL NUMBER (List)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATERBODY
	E. DEG.	F. MIN.	G. SEC.	H. DEG.	I. MIN.	J. SEC.	
001	41°	56'	30	70°	35'	00	Cape Cod Bay
002	41°	56'	30	70°	35'	00	Cape Cod Bay
003	41°	56'	30	70°	35'	00	Cape Cod Bay
004	41°	56'	30	70°	35'	00	Cape Cod Bay
005	41°	56'	30	70°	35'	00	Cape Cod Bay
006	41°	56'	30	70°	35'	00	Cape Cod Bay

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

I. OUTFALL NUMBER (List)	E. OPERATION(S) CONTRIBUTING FLOW		F. TREATMENT		G. DESCRIPTION	H. LIST CODES FROM TABLE 2C-1
	E. OPERATION (List)	F. AVERAGE FLOW (Include unit(s))	G.	H.		
001	Condenser Cooling Water	447 MGD	Chlorine		2	F
			Ocean Discharge through Outfall		4	B
002	Thermal Backwash for Bio-fouling	224 MGD	None		X	X
	Control		Ocean Discharge through Outfall		4	B
003	Intake Screen Wash (Fish Sluice Water)	4.10 MGD	Dechlorination		2	E
			Ocean Discharge through Outfall		4	B
004	Storm Drain	2,379 GPM	None		X	X
		(Peak Runoff)	Ocean Discharge through Outfall		4	B
			-10-Year Storm of 1.5 inches/hr for 1 hr			
			-Rational Method (Q=ciA)			
005	Storm Drain	1,212 GPM				
	-Station Heat Drainage	(Peak Runoff)	Ocean Discharge through Outfall		4	B
	-Hydrogen Scrubber Discharge		-10-Year Storm of 1.5 inches/hr for 1 hr			
	-Deminerilizer Reject Water		-Rational Method (Q=ciA)			
006	Storm Drain	812 GPM	None		X	X
		(Peak Runoff)	Ocean Discharge through Outfall		4	B
			-10-Year Storm of 1.5 inches/hr for 1 hr			
			-Rational Method (Q=ciA)			

OFFICIAL USE ONLY (effluent guidelines sub-categories)

FORM  
**2C**  
NPDES

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**APPLICATION FOR PERMIT TO DISCHARGE POLLUTANTS**  
**EXISTING MANUFACTURING, COMMERCIAL, SERVICE, AND INDUSTRIAL ACTIVITIES**  
**Consolidated Permits Program**

**I. OUTFALL LOCATION**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	S. DEG.	E. MIN.	S. SEC.	E. DEG.	E. MIN.	S. SEC.	
007	41°	56'	30	70°	35'	00	Cape Cod Bay
008	41°	56'	30	70°	35'	00	Cape Cod Bay
010	41°	56'	30	70°	35'	00	Cape Cod Bay
011	41°	56'	30	70°	35'	00	Cape Cod Bay

Note: Coordinates are for Pilgrim Station. Outfalls are in different locations within 15 seconds of each other.

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES**

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

I. OUTFALL NUMBER (list)	E. OPERATION(S) CONTRIBUTING FLOW		F. TREATMENT		
	G. OPERATION (list)	H. AVERAGE FLOW (Include units)	I. DESCRIPTION	J. LIST CODES FROM TABLE 2C-1	K.
007	Storm Drain	5,819 GPM	None	X	X
		(Peak Runoff)	Ocean Discharge through Outfall	4	B
			-10-Year Storm of 1.5 inches/hr for 1 hr		
			-Rational Method (Q=ciA)		
008	Sea Foam Suppression Discharge	0.73 MGD	None	X	X
			Ocean Discharge through Outfall	4	B
010	Plant Service Cooling Water	19.4 MGD	Chlorine	2	F
			Ocean Discharge through Outfall	4	B
011	Neutralizing Sump Waste	0.015 MGD	Neutralizing	2	K
			Ocean Discharge through Outfall	4	B

## CONTINUED FROM THE FRONT

C. Except for storm runoff, leach, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?  
 YES (complete the following table)       NO (go to Section III)

I. OUTFALL NUMBER (list)	II. OPERATION CONTRIBUTING FLOW	III. FREQUENCY		IV. FLOW				V. DURATION (in days)
		A. DAYS PER WEEK (Specify average)	B. MONTHS PER YEAR (Specify average)	C. FLOW RATE (in MGD)	D. TOTAL VOLUME (Specify with units)	E. LONG TERM AVERAGE	F. MAXIMUM DAILY	
002	Thermal Backwash for Bio-fouling Control	1	8	224	224 MGD	224 MGD	255	4 hrs/day
003	Intake Screen Wash (Fish Sluice Water)	7	12	4.1	4.1 MGD	4.1 MGD	4.1	6 hrs/day
008	Sea Foam Suppression Discharge	1	8	0.73	0.73 MGD	0.73 MGD	0.73	2 hrs/day
011	Neutralizing Sump Waste	1	12	0.015	0.015 MGD	0.015 MGD	0.06	2 hrs/day

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?  
 YES (complete Item III-B)       NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production for other measures of operation?/  
 YES (complete Item III-C)       NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

I. AVERAGE DAILY PRODUCTION			II. AFFECTED OUTFALLS (list outfall numbers)
B. QUANTITY PER DAY	C. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (Specify)	

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.  
 YES (complete the following table)       NO (go to Item IV-B).

I. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	II. AFFECTED OUTFALLS		III. BRIEF DESCRIPTION OF PROJECT	IV. FINAL COM- PLIANCE DATE	
	B. NO.	C. SOURCE OF DISCHARGE		A. BY DATE	B. PRO- JECT

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs for other environmental projects which may affect your discharge(s) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.  MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

## V. INTAKE AND EFFLUENT CHARACTERISTICS

- A, B, & C: See instructions before proceeding - Complete one set of tables for each Intake and Effluent. Data for Intakes and Effluents in the same facility may be grouped together if they are controlled by the same permit. V-B
- NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-A, V-B, and V-C.
- D. Use the space below to list any of the pollutants listed in Table 2c-3 of the Instructions, which you know or have reason to believe are discharged from any outfall. For every pollutant you list, briefly describe the discharge, obtain analytical support and report any analytical data in your possession.

~~NPDES PERMIT RENEWAL~~  
~~APPLICATION~~

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

 YES (list all such pollutants below) NO (go to Item VI-B)

## CONTINUED FROM THE FRONT

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

YES (Identify the test(s) and describe their purposes below)

NO (go to Section VIII)

## VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

YES (List the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

NO (go to Section IX)

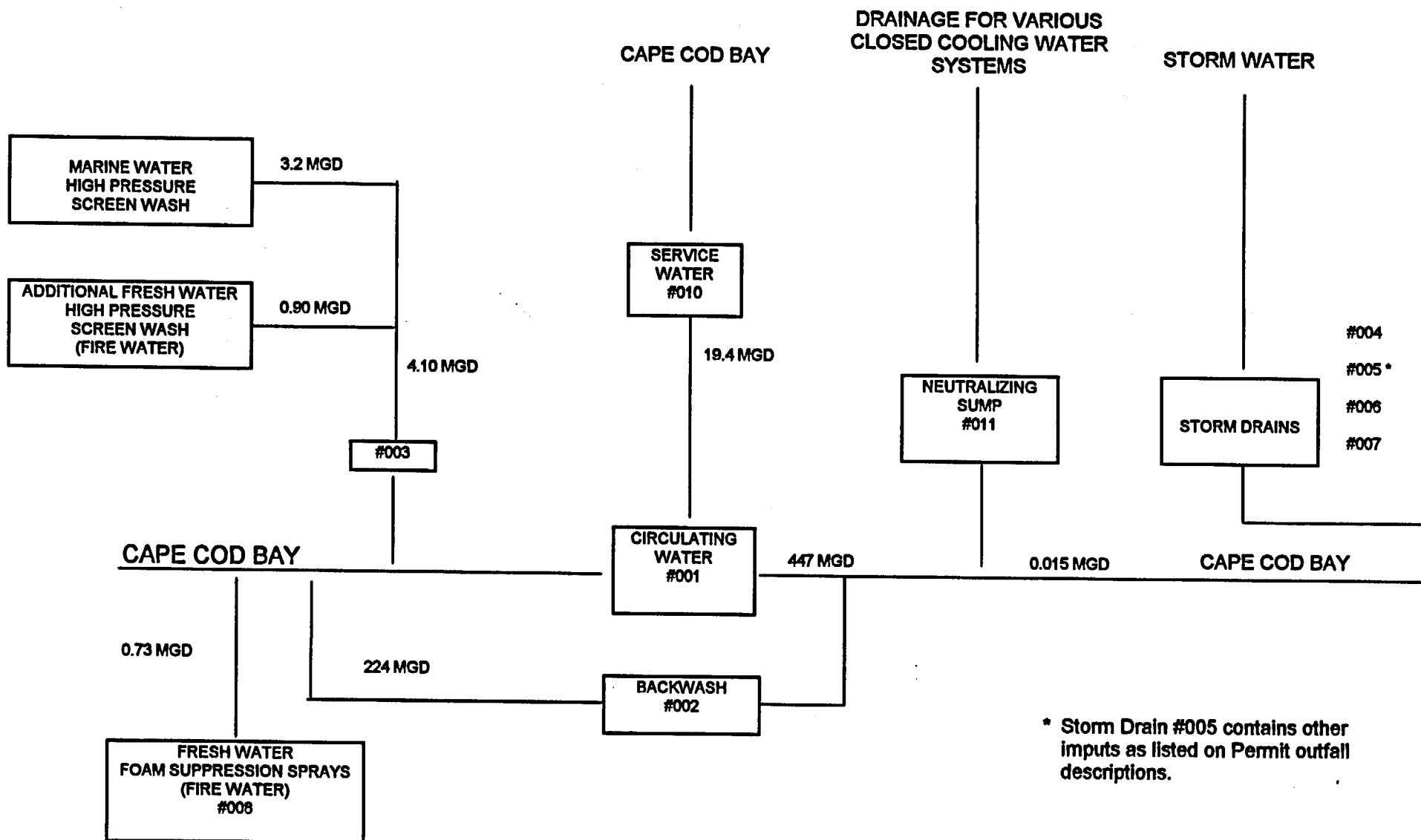
A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Thermo Analytical	300 Second Avenue Waltham, MA 02254	(617) 890-7200	All Analyses except TSS, TRO, Boron (These analyses performed at PNPS Chemistry Laboratory)

## IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (area code & no.)
Mr. M. Bellamy Site Vice President	(508) 830-8100
	12/11/99

**WATER FLOW DIAGRAM**  
**PILGRIM NUCLEAR POWER STATION**  
**PLYMOUTH, MA**



PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

MA 0003557

OUTFALL NO  
001

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if known)	4. INTAKE (optional)				
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVEG. VALUE (if available)			a. CONCEN- TRATION	b. MASS	d. LONG TERM AVERAGE VALUE		
	(i) CONCENTRATION	(ii) MASS	(i) CONCENTRATION	(ii) MASS	(i) CONCENTRATION	(ii) MASS				(i) CONCENTRATION	(ii) MASS	
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)												
e. Ammonia (as N)												
f. Flow	VALUE 510		VALUE		VALUE		*	MGD		VALUE		
g. Temperature (winter)	VALUE 23		VALUE		VALUE		*	°C		VALUE		
h. Temperature (summer)	VALUE 35		VALUE		VALUE		*	°C		VALUE		
L. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM			*	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	3. EFFLUENT						4. UNITS	5. INTAKE (optional)				
	2. MARK 'X'		b. MAXIMUM DAILY VALUE		c. MAXIMUM 30 DAY VALUE (if available)			a. NO OF ANALYSES	d. LONG TERM AVERAGE VALUE		e. NO. OF ANALYSES	
	D. PRE- LIMI- TAT- ED POLLUTANT	D. NOT PRE- LIMI- TAT- ED POLLUTANT	(i) CONCENTRATION	(ii) MASS	(i) CONCENTRATION	(ii) MASS			(i) CONCENTRATION	(ii) MASS		
a. Bromide (24959-67-8)	X											
b. Chlorine, Total Residual	X	0.09	174	0.09	174	0.02	38.16	9	MG/L	KG		
c. Color	X											
d. Fecal Coliform	X											
e. Fluoride (10034-48-2)	X											
f. Nitrate-Nitrite (as N)	X											

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND C.A.S. NO. (if available)	2. MARK X	3. EFFLUENT						4. UNITS	5. INTAKE (if known)					
		B. MAXIMUM DAILY VALUE		C. MAXIMUM 30 DAY VALUE		D. LONG TERM AVERAGE VALUE			E. NO. OF ANALYSES	A. CONCENTRATION		B. AVERAGE CONCENTRATION	C. NO. OF ANALYSES	
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
e. Nitrogen, Total Organic (as N)	X													
f. Oil and Grease	X													
g. Phosphorus (as P), Total (7723-14-0)	X													
h. Radioactivity														
(1) Alpha, Total	X													
(2) Beta, Total	X													
(3) Radium, Total	X													
(4) Radium 226, Total	X													
i. Sulfate (as SO <sub>4</sub> ) (14608-78-5)	X													
j. Sulfide (as S)	X													
m. Sulfite (as SO <sub>3</sub> ) (14269-48-3)	X													
n. Surfaceactive	X													
o. Alkalinity, Total (7429-00-0)	X													
p. Barium, Total (7440-58-5)	X													
q. Boron, Total (7440-42-6)	X													
r. Cobalt, Total (7440-48-4)	X	<0.010						1	MG/L	KG				
s. Iron, Total (7439-89-6)	X	0.0875	169					1	MG/L	KG				
t. Magnesium, Total (7439-95-4)	X													
u. Molybdenum, Total (7439-98-7)	X													
v. Manganese, Total (7439-98-5)	X													
w. Tin, Total (7440-31-5)	X													
x. Titanium, Total (7440-32-6)	X													

EPA I.D. NUMBER (copy from Item 1 of Form II) OUTFALL NUMBER  
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CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C** - If you are a primary industry and this outfall contains process wastewater, refer to Table 2a-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess believe is absent, if you mark column 2a for any pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (off 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER. (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. TEST ITEM GUIDE #	B. PP- LEVEL/LEVEL TEST	C. PP- LEVEL/LEVEL TEST	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION	F. NO. OF ANALYSES	G. CONCENTRATION	H. MASS	I. LONG TERM AVERAGE VALUE (1) CONCENTRATION	J. NO. OF ANALYSES			
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M. Anthony, Total (7440-38-0)		X													
2M. Arsenic, Total (7440-38-2)		X													
3M. Beryllium, Total, 7440-41-7)		X													
4M. Cadmium, Total (7440-43-8)		X													
5M. Chromium, Total (7440-47-3)		X													
6M. Copper, Total (7440-50-8)		X													
7M. Lead, Total (7439-92-7)		X													
8M. Mercury, Total (7439-97-6)		X													
9M. Nickel, Total (7440-02-0)		X													
10M. Selenium, Total (7782-49-3)		X													
11M. Silver, Total (7440-22-4)		X													
12M. Thallium, Total (7440-28-0)		X													
13M. Zinc, Total (7440-66-6)		X													
14M. Cyanide, Total (57-12-5)		X													
15M. Phenols, Total		X													
<b>DIOXIN</b>															
2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1784-01-6)				DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF APPLICABLE	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		3.00 PPM CONC. PER CENT	3.00 PPM AMBIENT CONC.	4. MAXIMUM DAILY VALUE (1) CONCENTRATION	4. MAXIMUM 30 DAY VALUE (1) available	4. LONG TERM AVERAGE VALUE (1) available	4. NO OF ANALYSES		A. CONCENTRATION	4. MASS	B. LONG TERM AVERAGE VALUE (1) CONCENTRATION
GC/MS FRACTION - VOLATILE COMPOUNDS											
IV. Acetone (107-02-8)	X										
2V. Acrylonitrile (107-13-1)	X										
3V. Benzene (71-43-2)	X										
4V. Bis (Chloromethyl) Ether (562-89-1)	X										
5V. Bromoform (75-25-2)	X										
6V. Carbon Tetrachloride (56-23-5)	X										
7V. Chlorobenzene (108-80-7)	X										
8V. Chlorodibromomethane (124-49-1)	X										
9V. Chloroethane (75-00-5)	X										
10V. 2-Chloro-ethylvinyl Ether (110-78-6)	X										
11V. Chloroform (67-66-3)	X										
12V. Dichlorodibromomethane (78-27-4)	X										
13V. Dichlorodifluoromethane (76-71-6)	X										
14V. 1,1-Dichloroethane (75-34-3)	X										
15V. 1,2-Dichloroethene (107-06-2)	X										
16V. 1,1-Dichloroethylene (78-38-4)	X										
17V. 1,2-Dichloropropene (78-67-5)	X										
18V. 1,3-Dichloropropane (942-73-6)	X										
19V. Ethylbenzene (100-41-1)	X										
20V. Methyl bromide (74-89-9)	X										
21V. Methyl Chloride (74-87-3)	X										

CONTINUED FROM PAGE V-4

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	TEST METHOD NO.	TEST METHOD NO.	COR- RECTION FACTOR IF APPLICABLE	D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	E. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	F. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	G. NO. OF ANALYSES	H. CONCENTRATION	I. MASS	J. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	K. NO. OF ANALYSES				
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>															
22V. Methylene Chloride (75-09-2)		X													
23V. 1,1,2-Tetra-chloroethane (78-34-6)		X													
24V. Tetrachloro-ethylene (127-12-4)		X													
25V. Toluene (108-88-3)		X													
26V. 1,2-Tri- Chloroethylene (1186-00-8)		X													
27V. 1,1,1-Trichloroethane (71-63-6)		X													
28V. 1,1,2-Trichloroethane (78-00-8)		X													
29V. Trichloro- ethylene (79-01-6)		X													
30V. Trichloro- fluoromethane (78-69-4)		X													
31V. Vinyl Chloride (75-01-4)		X													
<b>GC/MS FRACTION - ACID COMPOUNDS</b>															
1A. 2-Chlorophenoxy (106-57-8)		X													
2A. 2,4-Dichloro- phenol (120-63-2)		X													
3A. 2,4-Dimethyl- phenol (100-67-8)		X													
4A. 4,6-Dinitro-O-Cresol (834-62-1)		X													
5A. 2,4-Dinitro- phenol (51-28-5)		X													
6A. 2-Nitrophenol (58-78-8)		X													
7A. 4-Nitrophenol (1100-02-7)		X													
8A. P-Chloro-M-Cresol (59-60-7)		X													
9A. Pentachloro- phenol (57-98-8)		X													
10A. Phenol (108-96-2)		X													
11A. 2,4,6-Tri- chlorophenol (88-06-2)		X													

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF TEST NOT PERFORMED	3. EFFLUENT						4. UNITS	5. INTAKE (portion)		
		A. MAXIMUM DAILY VALUE (i) CONCENTRATION (ii) mass	B. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) mass	C. LONG TERM AVERAGE VALUE (i) CONCENTRATION (ii) mass	D. NO. OF ANAL- YSES	E. CONCEN- TRATION	F. MASS		G. LONG TERM AVERAGE VALUE (i) CONCEN- TRATION (ii) mass	H. NO. OF ANAL- YSES	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>											
18. Acenaphthene (93-32-9)	X										
29. Acenaphthylene (208-98-8)	X										
38. Anthracene (120-12-7)	X										
48. Benzo(d) Anthracene (30-65-5)	X										
58. Benzo(a) Pyrene (30-32-8)	X										
78. 2,4-Benzo- Fluoranthene (208-99-2)	X										
88. Benzo(a) Perylene (191-34-2)	X										
98. Benzo(a) Fluoranthene (207-08-0)	X										
108. Bis(2-Chloro- ethyl) Methane (111-61-1)	X										
118. Bis(2-Chloro- ethyl) Ether (111-64-4)	X										
128. Bis(2-Chloro- propyl) Ether (102-60-1)	X										
138. Bis(2-Ethyl- hexyl) Phthalate (117-69-7)	X										
148. 4-Bromo- phenyl Phenyl Ether (101-68-3)	X										
158. Butyl Benzyl Phthalate (85-68-7)	X										
168. 2-Chloro- naphthalene (91-68-7)	X										
178. 4-Chloro- phenyl Phenyl Ether (7006-72-3)	X										
188. Chrysene (218-01-6)	X										
198. Dibenzo(a,h) Anthracene (53-70-3)	X										
208. 1,2-Dihydro- benzene (93-60-1)	X										
218. 1,3-Dichloro- benzene (841-73-1)	X										

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF ANALYSED	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		D. CONCEN- TRATION (if available)	E. CONCEN- TRATION (if available)	F. MAXIMUM DAILY VALUE (if available)	G. LONG TERM AVERAGE VALUE (if available)	H. NO. OF ANAL- YSES	I. CONCEN- TRATION	J. MASS	K. LONG TERM AVERAGE VALUE (if available)	L. NO. OF ANAL- YSES	
<b>OC/RB FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
228. 1,4-Dichloro- benzene (108-40-7)	X										
238. 3,7-Dichloro- benzidine (51-04-1)	X										
248. Diethyl Phthalate (84-66-2)	X										
258. Dimethyl Phthalate (131-11-3)	X										
268. DiN-Ethyl Phthalate (84-76-2)	X										
278. 2,4-Dinitro- toluene (121-14-2)	X										
288. 2,6-Dinitro- toluene (908-20-2)	X										
298. DiM-Ethy Phthalate (117-04-0)	X										
308. 1,3-Diphenyl- Hydrocarbo (or Aro- matic) (132-08-7)	X										
318. Phenanthrene (208-44-0)	X										
328. Phenane (107-73-7)	X										
338. Phenanthrene (119-74-1)	X										
348. Hexa- chlorobutadiene (57-98-3)	X										
358. Hexachloro- cycloparaffins (77-47-0)	X										
368. Hexachloro- ethane (67-72-1)	X										
378. Indeno (1,2,3- <del>4</del> -4) Pyrene (193-39-4)	X										
388. Isophorone (78-69-1)	X										
398. Naphthalene (91-20-3)	X										
408. Nitrobenzene (98-95-3)	X										
418. N-Nitro- methylaniline (62-78-0)	X										
428. N-Nitroso- N-Propylamine (101-44-7)	X										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' TEST NO. QUAN- TITY	3. MAXIMUM DAILY VALUE CONCENTRATION (i) CONC. (ii) MASS	3. EFFLUENT MAXIMUM 30 DAY VALUE CONC. (ppm) (i) CONC. (ii) MASS				4. UNITS		5. INTAKE (optional)		
			4. MAXIMUM 30 DAY VALUE CONC. (ppm) (i) CONC. (ii) MASS	5. LONG TERM AVEG. VALUE CONC. (ppm) (i) CONC. (ii) MASS	6. NO. OF ANAL- YSES	7. CONCEN- TRATION (i) CONC. (ii) MASS	8. MASS (i) CONC. (ii) MASS	9. LONG TERM AVERAGE VALUE (i) CONC. (ii) MASS	10. NO. OF ANAL- YSES		
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
438. N,N-Di- naphthylamine (86-30-8)		X									
448. Phenanthrene (185-01-6)		X									
458. Pyrene (1129-00-0)		X									
468. 1,2,4-Tri- chlorobenzene (120-62-1)		X									
<b>GC/MS FRACTION - PESTICIDES</b>											
1P. Aldrin (300-00-2)		X									
2P. $\alpha$ -BHC (319-64-6)		X									
3P. $\beta$ -BHC (319-65-7)		X									
4P. $\gamma$ -BHC (319-66-8)		X									
5P. $\delta$ -BHC (319-66-8)		X									
6P. Chlordane (57-74-9)		X									
7P. 4,4'-DDT (50-29-3)		X									
8P. 4,4'-DDE (72-65-6)		X									
9P. 4,4'-DDD (72-64-5)		X									
10P. Dieldrin (60-57-1)		X									
11P. $\alpha$ -Endosulfan (1115-29-7)		X									
12P. $\beta$ -Endosulfan (1115-29-7)		X									
13P. Endosulfan Sulfate (11031-07-8)		X									
14P. Endrin (72-20-6)		X									
15P. Endrin Aldehyde (7421-93-4)		X									
16P. Heptachlor (176-44-6)		X									

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	REPORT PERIOD END DATE	DE- TER- MINA- TION TYPE	Q.C. TEST TYPE	A. MAXIMUM DAILY VALUE (i) CONCENTRATION (ii) MASS	B. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) MASS	C. LONG TERM AVG. VALUE (i) CONCENTRATION (ii) MASS	D. NO. OF ANAL- YSES	E. CONCEN- TRATION	F. MASS	G. LONG TERM AVERAGE VALUE (i) CONCEN- TRATION (ii) MASS	H. NO. OF ANAL- YSES			
<b>GC/MS FRACTION - PESTICIDES (continued)</b>														
17P. Heptachlor Epoxyde (1024-57-3)		X												
18P. PCB-1242 (03469-21-0)		X												
19P. PCB-1284 (11107-09-1)		X												
20P. PCB-1221 (11104-28-2)		X												
21P. PCB-1232 (11147-18-5)		X												
22P. PCB-1248 (12072-29-0)		X												
23P. PCB-1260 (11108-02-5)		X												
24P. PCB-1078 (12074-19-2)		X												
25P. Toxaphene (8001-36-2)		X												

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SEE INSTRUCTIONS.

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MA 0003557

OUTFALL NO  
002

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						4. UNITS (concentrations in mg/l)	4. INTAKE (optional)			
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVERG. VALUE (if available)			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				b. NO. OF ANALYSES	
a. Biochemical Oxygen Demand (BOD)											
b. Chemical Oxygen Demand (COD)											
c. Total Organic Carbon (TOC)											
d. Total Suspended Solids (TSS)											
e. Ammonia (as N)											
f. Flow	VALUE 255	VALUE	VALUE	VALUE	VALUE	VALUE	*	MGD	VALUE	VALUE	
g. Temperature (winter)	VALUE 17	VALUE	VALUE	VALUE	VALUE	VALUE	*	°C	VALUE	VALUE	
h. Temperature (summer)	VALUE 34	VALUE	VALUE	VALUE	VALUE	VALUE	*	°C	VALUE	VALUE	
i. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	*	STANDARD UNITS	MINIMUM	MAXIMUM	

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAB NO. (if available)	2. MARK 'X' a. PRE-EXISTING b. DIRECTLY LIMITED c. INDIRECTLY LIMITED	3. EFFLUENT						4. UNITS	4. INTAKE (optional)			
		a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVERG. VALUE (if available)			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE	
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				b. NO. OF ANALYSES	
a. Bromide (124939-67-9)	X											
b. Chlorine, Total Residual	X											
c. Color	X											
d. Fecal Coliform	X											
e. Fluoride (10084-49-8)	X											
f. Nitrate-Nitrite (as N)	X											

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK X G.00 LIQUID WASTE P.P. DENT S.G. S.G.	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		6. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS		7. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS		8. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS		AD. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	9. NO. OF ANALYSES		
g. Nitrogen, Total Organic (as N)	X										
h. Oil and Grease	X										
i. Phosphorus (as P), Total (7723-14-0)	X										
j. Radioactivity											
(1) Alpha, Total	X										
(2) Beta, Total	X										
(3) Radium, Total	X										
(4) Radon 226, Total	X										
k. Sulfate (as SO <sub>4</sub> ) (14600-79-5)	X										
l. Sulfide (as S)	X										
m. Sulfite (as SO <sub>3</sub> ) (14260-48-5)	X										
n. Surfactants	X										
p. Aluminum, Total (7429-90-5)	X										
s. Barium, Total (7440-93-5)	X										
t. Barium, Total (7440-42-8)	X										
r. Cobalt, Total (7440-48-5)	X	<0.010						1	MG/L	KG	
a. Iron, Total (7439-99-5)	X	0.0875	37.1					1	MG/L	KG	
e. Magnesium, Total (7439-95-4)	X										
m. Molybdenum, Total (7439-98-7)	X										
v. Manganese, Total (7439-99-5)	X										
w. Tin, Total (7440-31-5)	X										
x. Titanium, Total (7440-32-6)	X										

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**PART C** - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe they discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (of 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
		A. TESTED FOR (check if applicable)	B. NO. OF ANALYSES (check if applicable)	C. PERCENT SOLUBLE WATER (check if applicable)	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	D. MAXIMUM 30 DAY VALUE (1) MASS	E. LONG TERM AVERAGE VALUE (1) CONCENTRATION	E. LONG TERM AVERAGE VALUE (1) MASS	F. NO. OF ANALYSES	G. CONCENTRATION	H. MASS	I. LONG TERM AVERAGE VALUE (1) CONCENTRATION
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>												
1M. Antimony, Total (7440-36-0)	X											
2M. Arsenic, Total (7440-38-2)	X											
3M. Barium, Total (7440-41-7)	X											
4M. Cadmium, Total (7440-43-0)	X											
5M. Chromium, Total (7440-47-3)	X											
6M. Copper, Total (7440-50-0)	X											
7M. Lead, Total (7439-92-1)	X											
8M. Mercury, Total (7439-97-6)	X											
9M. Nickel, Total (7440-03-0)	X											
10M. Selenium, Total (7782-49-2)	X											
11M. Silver, Total (7440-32-4)	X											
12M. Thallium, Total (7440-28-0)	X											
13M. Zinc, Total (7440-06-6)	X											
14M. Cyanide, Total (57-12-8)	X											
15M. Phenols, Total	X											
<b>DLTXIN</b>												
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (1784-01-6)	X	DESCRIBE RESULTS										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
		AFFOT NO. REF. NO. GEN.	B. NO. REF. NO. GEN.	C. NO. REF. NO. GEN.	D. MAXIMUM DAILY VALUE (i) CONCENTRATION (ii) MASS	E. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) MASS	F. LONG TERM AVERAGE VALUE (i) available (ii) CONCENTRATION (iii) MASS		H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (i) CONCEN- TRATION (ii) MASS	K. NO. OF ANAL. YSES
<b>OCMS FRACTION - VOLATILE COMPOUNDS</b>												
IV. Acetone (1107-02-6)	X											
2V. Acrylonitrile (107-13-1)	X											
3V. Benzene (71-43-2)	X											
4V. Bis (Chloro-methyl) Ether (542-65-1)	X											
5V. Bromoform (75-25-2)	X											
6V. Carbon Tetrachloride (66-23-8)	X											
7V. Chlorobenzene (108-00-7)	X											
8V. Chlored bromomethane (124-68-1)	X											
9V. Chloroethane (75-00-3)	X											
10V. 2-Chloro-ethoxyvinyl Ether (110-75-6)	X											
11V. Chloroform (67-00-3)	X											
12V. Dichloro-bromomethane (75-27-4)	X											
13V. Dichloro-difluoromethane (75-71-6)	X											
14V. 1,1-Dichloro-ethane (75-34-3)	X											
15V. 1,2-Dichloro-ethane (107-06-2)	X											
16V. 1,1-Dichloro-ethylene (75-35-4)	X											
17V. 1,2-Dichloro-propene (75-87-8)	X											
18V. 1,2-Dichloro-propylene (542-72-6)	X											
19V. Ethylbenzene (100-41-4)	X											
20V. Methyl bromide (74-83-9)	X											
21V. Methyl Chloride (74-87-3)	X											

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	A. TOTAL B. DO- C. DO- G. DO- H. DO- I. DO- J. DO- K. DO- L. DO- M. DO- N. DO- O. DO- P. DO- Q. DO- R. DO- S. DO- T. DO- U. DO- V. DO- W. DO- X. DO- Y. DO- Z. DO-	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	D. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	E. NO. OF ANALYSES	F. CONCENTRATION	G. MASS	H. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	I. NO. OF ANALYSES							
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>																
22V. Methylene Chloride (75-00-2)	X															
23V. 1,1,2,2-Tetra-chloroethane (79-34-8)	X															
24V. Tetrachloro-ethylene (127-15-4)	X															
25V. Toluene (108-88-3)	X															
26V. 1,2-Dichloroethylene (116-60-8)	X															
27V. 1,1,1-Trifluoroethane (71-65-8)	X															
28V. 1,1,2-Trifluoroethane (78-00-8)	X															
29V. Trichloroethylene (79-01-0)	X															
30V. Trichlorofluoromethane (78-69-4)	X															
31V. Vinyl Chloride (78-01-4)	X															
<b>GC/MS FRACTION - ACID COMPOUNDS</b>																
1A. 2-Chlorophenol (99-57-8)	X															
2A. 2,4-Dichlorophenol (120-63-2)	X															
3A. 2,4-Dimethylphenol (106-67-8)	X															
4A. 4,6-Dinitro-O-Cresol (834-62-1)	X															
5A. 2,4-Dinitrophenol (51-28-8)	X															
6A. 2-Nitrophenol (58-75-8)	X															
7A. 4-Nitrophenol (1100-02-7)	X															
8A. P-Chloro-M-Cresol (59-60-7)	X															
9A. Pentachlorophenol (57-88-8)	X															
10A. Phenol (108-95-2)	X															
11A. 2,4,6-Tri-chlorophenol (88-06-2)	X															

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
		A. TEST WATER LEVEL PER CENT BY WEIGHT	B. DE- TERMINED TEST WATER LEVEL PER CENT BY WEIGHT	C. DE- TERMINED TEST WATER LEVEL PER CENT BY WEIGHT	D. MAXIMUM DAILY VALUE (if available) (1) CONCENTRATION (2) MASS	E. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	F. LONG TERM AVERAGE VALUE (if available) (1) CONCENTRATION (2) MASS		G. NO. OF ANAL- YSES	H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (1) CONCENTRA- TION (2) MASS
<b>OCCR3 FRACTION - BASE/NEUTRAL COMPOUNDS</b>												
78. Acenaphthene (93-32-8)	X											
28. Acenaphthylene (208-98-8)	X											
35. Anthracene (120-12-7)	X											
49. Benzo(d)anthracene (92-67-6)	X											
69. Benzo(a)Anthracene (58-55-3)	X											
68. Benzo(a)Pyrene (50-32-8)	X											
75. 3,4-Benzo- fluoranthene (206-99-2)	X											
92. Benzo(a)Perylene (191-24-2)	X											
93. Benzo(a)Fluoranthene (207-08-6)	X											
108. Bis(2-Chloro- ethyl) Methane (111-91-1)	X											
118. Bis(2-Chloro- ethyl) Ether (119-44-4)	X											
128. Bis(2-Chloro- propyl) Ether (102-60-1)	X											
138. Bis(2-Ethyl- hexyl) Phthalate (117-81-7)	X											
148. 4-Bromo- phenyl Phenyl Ether (101-68-3)	X											
158. Butyl Benzyl Phthalate (95-68-7)	X											
168. 2-Chloro- naphthalene (91-68-7)	X											
178. 4-Chloro- phenyl Phenyl Ether (7006-72-3)	X											
188. Chrysene (218-01-8)	X											
198. Dibenzo(a,h)- Anthracene (93-70-3)	X											
208. 1,2-Dichloro- benzene (95-50-1)	X											
218. 1,3-Dichloro- benzene (541-73-1)	X											

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		4. MAXIMUM DAILY VALUE (i) CONCENTRATION (ii) mass	5. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) mass	6. LONG TERM AVEG. VALUE (i) CONCENTRATION (ii) mass	N. NO. OF ANALYSES	7. CONCENTRATION	8. MASS		A. LONG TERM AVERAGE VALUE (i) CONCENTRATION (ii) mass	B. NO. OF ANALYSES	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
228. 1,4-Dichloro- benzene (106-40-7)	X										
238. 3,3'-Dichloro- benzene (51-94-1)	X										
248. Dimethyl Phthalate (24-68-2)	X										
258. Dimethyl Phthalate (131-11-3)	X										
268. DIN-Butyl Phthalate (34-74-2)	X										
378. 2,4-Dinitro- benzene (121-14-3)	X										
388. 2,6-Dinitro- benzene (900-30-2)	X										
298. DIN-Octyl Phthalate (117-64-0)	X										
308. 1,2-Diphenyl- Hydroquinone (as 4- Acetophenone) (122-68-7)	X										
318. Fluoranthene (208-44-0)	X										
328. Fluorene (18-73-7)	X										
338. Hexamethylbenzene (119-74-1)	X										
348. Hexa- Chlorobenzene (57-89-2)	X										
358. Hexachloro- Benzene (77-47-0)	X										
368. Hexamethoxy- Benzene (57-72-1)	X										
378. Indeno (1,2,3- <i>o</i> -) Pyrene (193-38-6)	X										
388. Naphthalene (78-09-1)	X										
398. Naphthalene (91-20-3)	X										
408. Nitrobenzene (65-85-0)	X										
418. N-Nitro- Sodimethylaniline (103-78-0)	X										
428. N-Nitroso- N-Methyl-N- Propylamine (121-24-7)	X										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF AVAILABLE	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
		A. TEST NO. AVAIL-	B. NO. TEST NO. AVAIL-	C. PR- DUCED TEST NO.	D. MAXIMUM DAILY VALUE (i) CONCENTRATION (ii) MASS	E. MAXIMUM 30 DAY VALUE (i) available (ii) CONCENTRATION (iii) MASS	F. LONG TERM AVG. VALUE (i) available (ii) CONCENTRATION (iii) MASS		G. NO. OF ANAL- YSES	H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (i) CONCENTRATION (ii) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
438. N-Nitro- naphthalimidine (86-30-6)		X										
449. Phenanthrene (120-01-8)		X										
459. Pyrene (120-00-0)		X										
468. 1,2,4-Tri- chlorobenzene (120-62-1)		X										
<b>GC/MS FRACTION - PESTICIDES</b>												
1P. Aldrin (309-00-2)		X										
2P. $\alpha$ -BHC (319-64-6)		X										
3P. $\beta$ -BHC (319-65-7)		X										
4P. $\gamma$ -BHC (319-66-8)		X										
5P. $\delta$ -BHC (319-68-0)		X										
6P. Chlordane (57-74-9)		X										
7P. 4,4'-DDT (50-29-3)		X										
8P. 4,4'-DDE (72-69-9)		X										
9P. 4,4'-DDD (72-64-8)		X										
10P. Dieldrin (60-07-1)		X										
11P. $\alpha$ -Endosulfan (115-29-7)		X										
12P. $\beta$ -Endosulfan (115-29-7)		X										
13P. Endosulfan Sulfate (1031-07-8)		X										
14P. Endrin (72-20-8)		X										
15P. Endrin Aldehyde (7421-93-4)		X										
16P. Heptachlor (76-44-8)		X										

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT										4. UNITS			5. INTAKE (optional)		
		TEST NO.	1. DE- TERMINED TEST ITEM	2. DE- TERMINED TEST ITEM	3. DE- TERMINED TEST ITEM	B. MAXIMUM DAILY VALUE		C. MAXIMUM 30 DAY VALUE (if available)		D. LONG TERM AVEG. VALUE (if available)		E. NO. OF ANAL- YSES	F. CONCEN- TRATION	G. MASS	H. LONG TERM AVERAGE VALUE (if concen- tration)	I. NO. OF ANAL- YSES	
GC/MS FRACTION - PESTICIDES (continued)																	
17P. Heptachlor Epsilon (11024-87-3)	X																
18P. PCB-1242 (63469-21-0)	X																
19P. PCB-1264 (11007-69-1)	X																
20P. PCB-1221 (111104-29-2)	X																
21P. PCB-1232 (111141-16-8)	X																
22P. PCB-1248 (12672-29-0)	X																
23P. PCB-1260 (11008-62-0)	X																
24P. PCB-1018 (12674-11-2)	X																
25P. Toxaphene (8001-36-2)	X																

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.  
SEE INSTRUCTIONS.

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OUTFALL NO  
003

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

I. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)	4. INTAKE (optional)		5. LONG TERM AVERAGE VALUE (i) CONCENTRATION (ii) MASS	6. NO. OF ANALYSES
	A. MAXIMUM DAILY VALUE (i) CONCENTRATION	B. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) available)	C. LONG TERM AVE. VALUE (i) CONCENTRATION (ii) available)	D. NO. OF ANALYSES	E. CONCENTRATION	F. MASS		(i) CONCENTRATION	(ii) MASS		
a. Biochemical Oxygen Demand (BOD)											
b. Chemical Oxygen Demand (COD)											
c. Total Organic Carbon (TOC)											
d. Total Suspended Solids (TSS)											
e. Ammonia (as N)											
f. Flow	VALUE 4.1	VALUE	VALUE				*	MGD		VALUE	
g. Temperature (winter)	VALUE 9	VALUE	VALUE				*	°C		VALUE	
h. Temperature (summer)	VALUE 16	VALUE	VALUE				*	°C		VALUE	
i. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM			*	STANDARD UNITS			

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

I. POLLUTANT AND CAS NO. (if applicable)	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			6. NO. OF ANALYSES
	B. MARK 'X'	C. PRE-LIMI-TED POLLUTANT	D. PRE-LIMI-TED POLLUTANT	E. MAXIMUM DAILY VALUE (i) CONCENTRATION	F. MAXIMUM 30 DAY VALUE (i) CONCENTRATION (ii) available)	G. LONG TERM AVE. VALUE (i) CONCENTRATION (ii) available)		I. CONCENTRATION	J. MASS	K. LONG TERM AVERAGE VALUE (i) CONCENTRATION (ii) MASS	
a. Bromide (24993-07-9)	X										
b. Chlorine, Total Residual	X										
c. Color	X										
d. Fecal Coliform	X										
e. Fluoride (16904-49-6)	X										
f. Nitrate-Nitrite (as N)	X										

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK X	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		3. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	3. LONG TERM AVERAGE VALUE (1) CONCENTRATION	3. MAXIMUM DAILY VALUE (1) MASS	3. MAXIMUM 30 DAY VALUE (1) MASS	3. LONG TERM AVERAGE VALUE (1) MASS		4. CONCENTRATION (1) CONCENTRATION	4. UNITS (1) MASS	5. LONG TERM AVERAGE VALUE (1) CONCENTRATION
g. Nitrogen, Total Organic (as N)	X										
h. Oil and Grease	X										
i. Phosphorus (as P), Total (7723-14-0)	X										
j. Radioactivity											
(1) Alpha, Total	X										
(2) Beta, Total	X										
(3) Radium, Total	X										
(4) Radon 226, Total	X										
k. Sulfate (as SO <sub>4</sub> ) (14403-73-0)	X	2,540	39,389					1	MG/L	KG	
l. Sulfide (as S)	X										
m. Sulfite (as SO <sub>3</sub> ) (14253-45-3)	X										
n. Surfactants	X										
o. Aluminum, Total (7429-00-8)	X										
p. Barium, Total (7440-58-5)	X										
q. Boron, Total (7440-42-8)	X										
r. Cobalt, Total (7440-49-4)	X	<0.010						1	MG/L	KG	
s. Iron, Total (7439-93-6)	X	0.0875	37.1					1	MG/L	KG	
t. Magnesium, Total (7439-95-4)	X										
u. Molybdenum, Total (7439-98-7)	X										
v. Manganese, Total (7439-98-8)	X										
w. Tin, Total (7440-31-0)	X										
x. Titanium, Total (7440-32-6)	X										

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 003

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (of 7 pages) for each outfall. See Instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)	
		A. TEMP. REG. MATERIAL TYPE CODE	B. DE- LIVERED TEST FACT	C. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	E. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	F. NO. OF ANALYSES		G. CONCEN- TRATION	H. MASS
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>										
1M, Antimony, Total (7440-36-0)		X								
2M, Arsenic, Total (7440-38-2)		X								
3M, Beryllium, Total (7440-41-7)		X								
4M, Cadmium, Total (7440-43-9)		X								
5M, Chromium, Total (7440-47-3)		X								
6M, Copper, Total (7440-09-8)		X								
7M, Lead, Total (7439-92-1)		X								
8M, Mercury, Total (7439-97-6)		X								
9M, Nickel, Total (7440-02-0)		X								
10M, Selenium, Total (7782-49-2)		X								
11M, Silver, Total (7440-22-4)		X								
12M, Thallium, Total (7440-28-0)		X								
13M, Zinc, Total (7440-66-6)		X								
14M, Cyanide, Total (57-12-5)		X								
15M, Phenols, Total		X								
<b>DIOXIN</b>										
2,3,7,8-Tetra-chlorodibenz-p-Dioxin (1784-01-6)	X	DESCRIBE RESULTS								

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF NOT APPLI- CABLE	3. EFFLUENT								4. UNITS	5. INTAKE (optional)		
		3. MAXIMUM DAILY VALUE (i) CONCENTRATION	3. MAXIMUM 30 DAY VALUE (i) CONCENTRATION	3. LONG TERM AVERAGE VALUE (i) CONCENTRATION	3. NO OF ANALYSES	4. CONCENTRATION	4. MASS	5. LONG TERM AVERAGE VALUE (i) CONCENTRATION	5. NO OF ANALYSES				
GC/MS FRACTION - VOLATILE COMPOUNDS													
IV. Acetone (1107-02-8)	X												
2V. Acrylonitrile (107-13-1)	X												
3V. Benzene (71-43-2)	X												
4V. Bis (Chloro- methyl) Ether (542-88-1)	X												
5V. Bromoform (75-26-2)	X												
6V. Carbon Tetrachloride (56-23-8)	X												
7V. Chlorobenzene (108-90-7)	X												
8V. Chloro- bromomethane (124-48-1)	X												
9V. Chloroethene (75-00-3)	X												
10V. 2-Chloro- ethyvinyl Ether (110-78-6)	X												
11V. Chloroform (67-66-3)	X												
12V. Dichloro- bromomethane (75-27-4)	X												
13V. Dichloro- dibromomethane (75-71-8)	X												
14V. 1,1-Dichloro- ethene (75-34-3)	X												
15V. 1,2-Dichloro- ethene (107-06-2)	X												
16V. 1,1-Dichloro- ethylene (75-35-4)	X												
17V. 1,2-Dichloro- propane (78-87-3)	X												
18V. 1,3-Dichloro- propane (543-78-6)	X												
19V. Ethylbenzene (100-41-4)	X												
20V. Methyl Bromide (74-83-9)	X												
21V. Methyl Chloride (74-87-3)	X												

**CONTINUED FROM PAGE V-4**

EPA I.D. NUMBER (copy from Item 1 of Form 1) MA 0003557 DUSTFALL NUMBER 003

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	STOIC. FRACTION	DE- GASS. FRACTION	CAS NUM- BER	3. MAXIMUM DAILY VALUE (i) CONCENTRATION	4. MAXIMUM 30 DAY VALUE (ii) CONCENTRATION	5. LONG TERM AVE. VALUE (iii) CONCENTRATION	6. NO. OF ANAL- YSES	7. CONCEN- TRATION	8. MASS	9. LONG TERM AVERAGE VALUE (i) CONCEN- TRATION	10. NO. OF ANAL- YSES			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS														
18. Acenaphthene (83-32-9)			X											
28. Acenaphthylene (208-98-8)			X											
38. Anthracene (120-12-7)			X											
48. Benzo(d)anthracene (192-67-6)			X											
58. Benzo(a)Anthracene (166-65-3)			X											
68. Benzo(a)Pyrene (50-32-8)			X											
78. 3,4-Benzo- fluoranthene (208-69-2)			X											
88. Benzo(b)Perylene (181-34-2)			X											
98. Benzo(k)Fluoranthene (207-08-8)			X											
108. Bis(2-Chloro- ethoxy) Methane (119-01-1)			X											
118. Bis(2-Chloro- ethyl) Ether (117-64-4)			X											
128. Bis(2-Chloro- propyl Ether (102-00-1)			X											
138. Bis(2-Ethyl- hexyl) Phthalate (117-81-7)			X											
148. 4-Bromo- Phenyl Phenyl Ether (101-08-9)			X											
158. Butyl Benzyl Phthalate (85-48-7)			X											
168. 2-Chloro- naphthalene (91-68-7)			X											
178. 4-Chloro- phenyl Phenyl Ether (7000-72-3)			X											
188. Chrysene (218-01-9)			X											
198. Dibenzo(a,h)- Anthracene (83-70-3)			X											
208. 1,2-Dichloro- benzene (95-55-1)			X											
218. 1,3-Dichloro- benzene (541-73-1)			X											

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 003

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
		D. NO. ITEM NO.	D. NO. LITERATURE REF.	C. NO. ITEM NO.	D. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) mass	E. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) mass	F. LONG TERM AVER. VALUE (1) CONCENTRATION (2) mass		G. NO. OF ANALYSES	H. CONCENTRATION	I. MASS	J. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) mass
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
228. 1,4-Dinitrobenzene (108-48-7)	X											
238. 3,2'-Dinitrobenzidine (91-04-1)	X											
248. Dimethyl Phthalate (84-68-2)	X											
258. Dimethyl Phthalate (131-11-3)	X											
268. Di-N-Butyl Phthalate (84-74-2)	X											
278. 2,4-Dinitrotoluene (127-14-2)	X											
288. 2,6-Dinitrotoluene (908-20-2)	X											
298. Di-N-Octyl Phthalate (117-04-0)	X											
308. 1,2-Dinitro-4-hydroxy (m-Azo-Benzene) (122-08-7)	X											
318. Phenanthrene (209-44-0)	X											
328. Fluorene (95-73-7)	X											
338. Phenanthrofuran (118-74-1)	X											
348. Hexachlorobutadiene (57-98-3)												
358. Hexachloro-penta-methane (77-47-0)	X											
368. Hexachloro-cyclohexane (67-72-1)	X											
378. Indene (1,3-Benzo) Pyrene (193-38-6)	X											
388. Naphthalene (78-09-1)	X											
398. Mephitolene (51-20-3)	X											
408. Nitrobenzene (95-05-0)	X											
418. N,N-Dimethyl-methylaniline (103-78-0)	X											
428. N,N-Dimethyl-N-Propylamine (1521-54-7)	X											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT								4. UNITS	5. INTAKE (optional)		
		A. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30-DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERG. VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANALYSES	E. CONCEN-TRATION	F. MASS	G. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	H. NO. OF ANALYSES				
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>													
438. N-Nitroso-diphenylamine (86-30-8)	X												
448. Phenanthrene (195-01-8)	X												
458. Pyrene (1129-00-0)	X												
468. 1,2,4-Tri-chlorobenzene (120-62-1)	X												
<b>GC/MS FRACTION - PESTICIDES</b>													
1P. Aldrin (308-00-3)	X												
2P. G-BHC (319-64-6)	X												
3P. $\beta$ -BHC (319-65-7)	X												
4P. T-BHC (32-62-6)	X												
5P. $\delta$ -BHC (319-66-8)	X												
6P. Chlordane (87-74-8)	X												
7P. 4,4'-DDT (50-29-3)	X												
8P. 4,4'-DDD (72-63-6)	X												
9P. 4,4'-DDO (72-64-8)	X												
10P. Dieldrin (60-67-1)	X												
11P. $\alpha$ -Endosulfan (1115-29-7)	X												
12P. $\beta$ -Endosulfan (1115-29-7)	X												
13P. Endosulfan Sulfate (1031-07-8)	X												
14P. Endrin (72-20-8)	X												
15P. Endrin Aldehyde (7421-03-4)	X												
16P. Heptachlor (76-44-8)	X												

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EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 003

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT												4. UNITS			5. INTAKE (optional)		
		Avg. mo. conc. conc.	B. av. max. conc. conc.	C. av. max. conc. conc.	D. MAXIMUM DAILY VALUE (if available)	E. MAXIMUM 30-DAY VALUE (if available)	F. LONG TERM AVG. VALUE (if available)	G. NO. OF ANALYSES	H. CONCENTRATION	I. MASS	J. LONG TERM AVERAGE VALUE (if available)	K. NO. OF ANALYSES	L. CONCENTRATION	M. MASS	N.	O.	P.		
GC/MS FRACTION - PESTICIDES (continued)																			
17P. Heptachlor Epoxy (11024-87-3)	X																		
18P. PCB-1242 (53468-21-9)	X																		
19P. PCB-1254 (11007-09-1)	X																		
20P. PCB-1221 (11104-28-2)	X																		
21P. PCB-1232 (11141-16-8)	X																		
22P. PCB-1248 (12672-29-6)	X																		
23P. PCB-1260 (11008-62-0)	X																		
24P. PCB-1016 (12674-11-2)	X																		
25P. Tonophene (8001-35-2)	X																		

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.  
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
MA 0003557

OUTFALL NO  
008

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVEG. VALUE (if available)		D. NO. OF ANALYSES	E. CONCENTRATION		B. MASS		D. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)												
e. Ammonia (as N)												
f. Flow	VALUE 0.73	VALUE	-----	-----	-----	-----	*	MGD	-----	-----	-----	
g. Temperature (winter)	VALUE 9	-----	-----	-----	-----	-----	*	°C	-----	-----	-----	
h. Temperature (summer)	VALUE 16	-----	-----	-----	-----	-----	*	°C	-----	-----	-----	
i. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM	-----	-----	*	STANDARD UNITS	-----	-----	-----	

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' (if applicable)	3. EFFLUENT							4. UNITS		5. INTAKE (optional)				
		D. PERMITTED AMOUNT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVEG. VALUE (if available)		E. NO. OF ANALYSES	D. CONCENTRATION		B. MASS		D. NO. OF ANALYSES	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
a. Bromide (24909-67-9)	X														
b. Chlorine, Total Residual	X														
c. Color	X														
d. Fecal Coliform	X														
e. Fluoride (10084-46-8)	X														
f. Nitrate-Nitrite (as N)	X														

## ITEM V.B CONTINUED FROM FRONT

1. POLLUT. ANT AND CAS NO. (if available)	2. MARK 'X' B. no. B. no. LAW/REG. NO. REF. DATE	3. EFFLUENT						4. UNITS		5. INTAKE (input/mol)		
		B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS		C. MAXIMUM 24-H DAY VALUE (1) CONCENTRATION (2) MASS		D. LONG TERM AVERG. VALUE (1) CONCENTRATION (2) MASS		E. NO OF ANALYSES	F. CONCENTRATION	G. MASS	H. NO. OF ANALYSES	I. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS
a. Nitrogen, Total Organic (or N) (17723-14-0)	X											
b. Oil and Grease	X											
c. Phosphorus (as P), Total (17723-14-0)	X											
d. Radioactivity												
(1) Alpha, Total	X											
(2) Beta, Total	X											
(3) Radium, Total	X											
(4) Radium 226, Total	X											
e. Sulfate (as SO <sub>4</sub> ) (114808-78-5)	X											
f. Sulfide (as S)	X											
g. Sulfite (as SO <sub>3</sub> ) (14265-48-3)	X											
h. Surfactants	X											
i. Aluminum, Total (7429-90-0)	X											
j. Barium, Total (7440-39-0)	X											
k. Boron, Total (7440-42-0)	X											
l. Cobalt, Total (7440-48-0)	X											
m. Iron, Total (7439-90-0)	X											
n. Magnesium, Total (7439-98-4)	X											
o. Molybdenum, Total (7439-99-7)	X											
p. Manganese, Total (7439-98-6)	X											
q. Tin, Total (7440-31-0)	X											
r. Titanium, Total (7440-32-0)	X											

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2a-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess believe is absent), if you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. Mark "X" in column 2-c for each pollutant you of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants. If you mark column 2b for acrolein, acrylonitrile, 2,4 concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (aff 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS		5. INTAKE (optional)	
		A. TEST NO. NO. OF SAMPLES	B. DE- TERMINED CONCEN- TRATION	C. MAXIMUM DAILY VALUE (1) CONCENTRATION	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	E. LONG TERM AVEG. VALUE (1) CONCENTRATION	F. NO. OF ANAL- YSES	G. CONCEN- TRATION	H. MASS (1) CONCEN- TRATION	I. LONG TERM AVERAGE VALUE (1) CONCEN- TRATION	J. NO. OF ANAL- YSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>											
1M. Antimony, Total (7440-36-0)	X										
2M. Arsenic, Total (7440-38-2)	X										
3M. Barium, Total, 7440-41-7)	X										
4M. Cadmium, Total (7440-43-9)	X										
5M. Chromium, Total (7440-47-3)	X										
6M. Copper, Total (7440-50-8)	X										
7M. Lead, Total (7439-92-1)	X										
8M. Mercury, Total (7439-97-6)	X										
9M. Nickel, Total (7440-02-0)	X										
10M. Selenium, Total (7782-49-2)	X										
11M. Silver, Total (7440-22-4)	X										
12M. Thallium, Total (7440-29-0)	X										
13M. Zinc, Total (7440-60-6)	X										
14M. Cyanide, Total (57-12-5)	X										
15M. Phenols, Total	X										
<b>DIOXIN</b>											
2,3,7,8-Tetra-chlorodibenz-p-Dioxin (1784-01-6)	X	DESCRIBE RESULTS									

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF NOT RELEVANT	3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
		A. 24HR. MAX. CONC. (ppm)	B. 24HR. AVERAGE CONC. (ppm)	C. MAXIMUM DAILY VALUE (1) CONCENTRATION	D. MAXIMUM 10 DAY VALUE (if available) (1) CONCENTRATION	E. LONG TERM AVE. VALUE (if available) (1) CONCENTRATION	F. 10 DAY MASS (1) MASS	G. NO OF ANAL. YSES	H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (1) CONCEN- TRATION	K. MASS	L. NO. OF ANAL. YSES	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>														
1V. Acetone (1107-02-0)	X													
2V. Acrylonitrile (1107-13-1)	X													
3V. Benzene (71-43-2)	X													
4V. Bis (Chloro- methyl) Ether (542-88-1)	X													
5V. Bromoform (75-23-2)	X													
6V. Carbon Tetrachloride (56-23-5)	X													
7V. Chlorobenzene (110-80-7)	X													
8V. Chlorodi- bromomethane (124-88-1)	X													
9V. Chloroethene (75-00-3)	X													
10V. 2-Chloro- ethylvinyl Ether (110-78-0)	X													
11V. Chloroform (67-66-3)	X													
12V. Dichloro- bromomethane (75-57-4)	X													
13V. Dichloro- difluoromethane (76-71-8)	X													
14V. 1,1-Dichloro- ethane (75-34-3)	X													
15V. 1,2-Dichloro- ethane (107-06-2)	X													
16V. 1,1-Dichloro- ethylene (75-38-4)	X													
17V. 1,2-Dichloro- propane (542-73-8)	X													
18V. 1,3-Dichloro- propane (542-73-8)	X													
19V. Ethylbenzene (100-49-4)	X													
20V. Methyl Bromoform (74-83-0)	X													
21V. Methyl Chloroform (74-87-3)	X													

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EPA I.D. NUMBER (copy from Item 1 of Form 1) MA 0003557  
OUTFALL NUMBER 008

1. POLLUTANT AND CAS NUMBER // available)	2. MARK 'X'	3. EFFLUENT												4. UNITS		5. INTAKE (optional)					
		A. MAXIMUM DAILY VALUE		B. MAXIMUM 15 DAY VALUE		C. LONG TERM AVG. VALUE			D. NO. OF ANALYSES	E. CONCENTRATION		F. MASS				G. LONG TERM AVERAGE VALUE		H. NO. OF ANALYSES			
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION		(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION			(2) MASS					
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>																					
22V. Methylene Chloride (75-09-2)		X																			
23V. 1,1,2,2-Tetrachloroethane (79-34-8)		X																			
24V. Tetrachloroethylene (127-18-4)		X																			
25V. Toluene (108-88-3)		X																			
26V. 1,2-Trichloroethylene (156-60-8)		X																			
27V. 1,1,1-Trichloroethane (71-60-6)		X																			
28V. 1,1,2-Trichloroethane (79-00-8)		X																			
29V. Trichloroethylene (79-01-6)		X																			
30V. Trichlorofluoromethane (78-89-4)		X																			
31V. Vinyl Chloride (75-01-4)		X																			
<b>GC/MS FRACTION - ACID COMPOUNDS</b>																					
1A. 2-Chlorophenol (96-57-6)		X																			
2A. 2,4-Dichloro-phenol (120-63-2)		X																			
3A. 2,4-Dimethyl-phenol (100-67-8)		X																			
4A. 4,6-Dinitro-O-Cresol (534-62-1)		X																			
5A. 2,4-Dinitro-phenol (51-28-5)		X																			
6A. 2-Nitrophenol (65-75-6)		X																			
7A. 4-Nitrophenol (100-02-7)		X																			
8A. P-Chloro-A-Cresol (89-60-7)		X																			
9A. Pentachloro-phenol (57-65-5)		X																			
10A. Phenol (108-95-2)		X																			
11A. 2,4,6-Tri-chlorophenol (69-60-2)		X																			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	A. TEST MEASUREMENT METHOD	B. NO. TESTED ITEMS	C. NO. TESTED ITEMS	D. MAXIMUM DAILY VALUE (i) CONCENTRATION	D. MAXIMUM 30 DAY VALUE (ii) CONCENTRATION	E. LONG TERM AVERAGE VALUE (i) CONCENTRATION	E. LONG TERM AVERAGE VALUE (ii) MASS	F. NO. OF ANAL. VSES	G. CONCEN- TRATION	H. MASS	I. NO. OF ANAL. VSES	J. LONG TERM AVERAGE VALUE (i) CONCENTRA- TION	K. NO. OF ANAL. VSES
<b>GC/M3 FRACTION - BASE/NEUTRAL COMPOUNDS</b>													
78. Acenaphthene (93-52-9)		X											
28. Acenaphthyrene (208-98-8)		X											
38. Anthracene (120-12-7)		X											
48. Benzidine (92-67-8)		X											
58. Benzo (a) Anthracene (36-65-3)		X											
68. Benzo (a) Pyrene (30-32-8)		X											
78. 3,4-Benzo- fluoranthene (208-98-2)		X											
88. Benzo (aH)- Perylene (191-24-2)		X											
98. Benzo (k) Fluoranthene (207-08-8)		X											
108. Bis (2-Chloro- ethyl) Methane (111-91-1)		X											
118. Bis (2-Chloro- ethyl) Ether (111-64-6)		X											
128. Bis (2-Chloro- propyl) Ether (102-60-1)		X											
138. Bis (2-Ethyl- hexyl) Phthalate (117-89-7)		X											
148. 4-Bromo- phenyl Phenyl Ether (101-68-9)		X											
158. Butyl Benzyl Phthalate (85-68-7)		X											
168. 2-Chloro- naphthalene (91-68-7)		X											
178. 4-Chloro- phenyl Phenyl Ether (7000-72-31)		X											
188. Chrysene (218-01-0)		X											
198. Dibenzo (a,h) Anthracene (83-70-3)		X											
208. 1,2-Dichloro- benzene (95-50-1)		X											
218. 1,3-Dichloro- benzene (541-73-1)		X											

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EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 008

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF NOT APPLI- CABLE	3. EFFLUENT						4. UNITS	5. INTAKE (applicable)		
		D. MAXIMUM DAILY VALUE (if available) (i) concn. (ii) mass	E. MAXIMUM 30 DAY VALUE (if available) (i) concn. (ii) mass	F. LONG TERM AVEG. VALUE (if available) (i) concn. (ii) mass	G. NO. OF ANAL- YSES	H. CONCEN- TRATION	I. MASS		J. LONG TERM AVERAGE VALUE (i) concn- tration (ii) mass	K. NO. OF ANAL- YSES	
<b>OCMS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
228. 1,4-Dinitro- benzene (108-49-7)	X										
238. 3,3'-Dinitro- benzidine (91-04-1)	X										
248. Dimethyl Phthalate (84-66-2)	X										
258. Dimethyl Phthalate (131-11-3)	X										
268. Di-N-Butyl Phthalate (84-74-2)	X										
278. 2,4-Dinitro- benzene (121-14-8)	X										
288. 2,6-Dinitro- benzene (908-20-2)	X										
298. Di-N-Octyl Phthalate (117-64-0)	X										
308. 1,2-Oxyphenyl- Hydroquinone (or Aro- Quinone) (122-68-7)	X										
318. Fluoranthene (208-44-0)	X										
328. Fluorene (86-73-7)	X										
338. Hexamethylenetetra- amine (119-74-1)	X										
348. Hexa- chlorobutadiene (97-66-3)	X										
358. Hexachloro- cyclohexadiene (77-47-0)	X										
368. Hexachloro- cyclohexene (97-72-1)	X										
378. Indeno (1,2,3- <i>cd</i> ) Pyrene (193-38-4)	X										
388. Isophorone (79-69-1)	X										
398. Methylketone (91-20-3)	X										
408. Nitrobenzene (98-99-2)	X										
418. N-Nitro- Sodimethylamine (62-78-0)	X										
428. N-Nitroso- N-Propylamine (651-44-7)	X										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" IF AVAILABLE	3. EFFLUENT										4. UNITS	5. INTAKE (optional)					
		A. 1 DAY MAX. CONC. PPM	B. 8-HR. AVERAGE CONC. PPM	C. 24-HR. AVERAGE CONC. PPM	D. MAXIMUM 30 DAY VALUE	E. LONG TERM AVEG. VALUE	F. NO. OF ANAL. YSES	G. CONCEN- TRATION	H. MASS	I. LONG TERM AVERAGE CONCEN- TRATION	J. NO. OF ANAL. YSES		B. MAXIMUM 30 DAY VALUE		E. LONG TERM AVERAGE CONCEN- TRATION			
B. MAXIMUM 30 DAY VALUE												(1) available		(1) available		(1) available		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)																		
438. N-Nitro- so-diphenylamine (86-30-6)	X																	
449. Phenanthrene (185-07-8)	X																	
458. Pyrene (123-00-0)	X																	
466. 1,2,4-Tri- chlorobenzene (120-62-1)	X																	
GC/MS FRACTION - PESTICIDES																		
1P. Aldrin (309-00-7)	X																	
2P. $\alpha$ -HxC (319-66-6)	X																	
3P. $\beta$ -HxC (319-66-7)	X																	
4P. $\gamma$ -HxC (58-69-9)	X																	
5P. $\delta$ -HxC (319-66-8)	X																	
6P. Chlordane (57-74-9)	X																	
7P. 4,4'-DDT (50-29-3)	X																	
8P. 4,4'-DDE (72-63-9)	X																	
9P. 4,4'-DDD (72-64-8)	X																	
10P. Dieldrin (60-67-1)	X																	
11P. $\alpha$ -Endosulfan (115-29-7)	X																	
12P. $\beta$ -Endosulfan (115-29-7)	X																	
13P. Endosulfan Sulfate (1031-07-6)	X																	
14P. Endrin (72-20-8)	X																	
15P. Endrin Aldehyde (7421-93-4)	X																	
16P. Heptachlor (76-44-8)	X																	

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	TEST	D. SR. NO.	G. SR. NO.	B. MAXIMUM DAILY VALUE (if available)	C. MAXIMUM 30 DAY VALUE (if available)	D. LONG TERM AVEG. VALUE (if available)	E. NO. OF ANAL- YSES	F. CONCEN- TRATION	G. MASS	H. NO. OF ANAL- YSES	I. CONCEN- TRATION	J. MASS	K. LONG TERM AVERAGE VALUE (if available)	L. NO. OF ANAL- YSES
GC/MS FRACTION - PESTICIDES (continued)														
17P. Heptachlor Epoxyde (1024-67-3)		X												
18P. PCB-1242 (13469-21-2)		X												
19P. PCB-1254 (11087-09-1)		X												
20P. PCB-1221 (11104-28-2)		X												
21P. PCB-1232 (11141-18-5)		X												
22P. PCB-1248 (12672-39-0)		X												
23P. PCB-1260 (11089-62-0)		X												
24P. PCB-1018 (12674-11-2)		X												
25P. Tetrachloro (8001-36-2)		X												

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.  
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

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OUTFALL NO  
010

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)	4. INTAKE (optional)			
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVEG. VALUE (if available)			a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS		
a. Biochemical Oxygen Demand (BOD)											
b. Chemical Oxygen Demand (COD)											
c. Total Organic Carbon (TOC)											
d. Total Suspended Solids (TSS)											
e. Ammonia (as N)											
f. Flow	VALUE 19.4	VALUE	VALUE	VALUE	VALUE	*	MGD	VALUE	VALUE		
g. Temperature (winter)	VALUE 23	VALUE	VALUE	VALUE	VALUE	*	°C	VALUE	VALUE		
h. Temperature (summer)	VALUE 35	VALUE	VALUE	VALUE	VALUE	*	°C	VALUE	VALUE		
i. pH	MINIMUM 7.5	MAXIMUM 8.5	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	*	STANDARD UNITS	STANDARD UNITS		

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'						3. EFFLUENT			4. UNITS			5. INTAKE (optional)						
	a. PRE-EXISTING PERMIT LIMITS		b. PRE-EXISTING ABSENCE TEST		c. MAXIMUM DAILY VALUE		d. MAXIMUM 30 DAY VALUE (if available)		e. LONG TERM AVEG. VALUE (if available)		f. NO. OF ANALYSES	a. CONCENTRATION		b. MASS		a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
a. Bromide (12493-67-0)	X																		
b. Chlorine, Total Residual	X	0.94	69	0.94	68.9	0.138	0.49	11	MG/L	KG									
c. Color	X																		
d. Fecal Coliform	X																		
e. Fluoride (10034-43-0)	X																		
f. Nitrates-Nitrite (as N)	X																		

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK X	3. EFFLUENT				4. UNITS	5. INTAKE (optional)		
		(a) 24-hr. EQUIV. CONC. CONC. (ppm)	(b) MAXIMUM DAILY VALUE CONC. (ppm)	(c) MAXIMUM 24-HOUR VALUE CONC. (ppm)	(d) LONG TERM AVERAGE VALUE CONC. (ppm)		(e) NO. OF ANALYSES	(f) CONCENTRATION CONC. (ppm)	(g) MASS
g. Nitrogen, Total Organic (as N) (7723-14-0)	X								
h. Oil and Grease	X								
i. Phosphorus (as P), Total (7723-14-0)	X								
j. Radioactivity									
(1) Alpha, Total	X								
(2) Beta, Total	X								
(3) Radium, Total	X								
(4) Radium 226, Total	X								
k. Sulfate (as SO <sub>4</sub> ) (14268-73-0)	X								
l. Sulfide (as S)	X								
m. Sulfite (as SO <sub>3</sub> ) (14268-43-3)	X								
n. Surfactants	X								
o. Aluminum, Total (7429-00-0)	X								
p. Boron, Total (7440-39-5)	X								
q. Boron, Total (7440-43-0)	X								
r. Cobalt, Total (7440-49-0)	X	<0.010				1	MG/L	KG	
s. Iron, Total (7439-89-0)	X	1.17	85.8			1	MG/L	KG	
t. Magnesium, Total (7439-98-4)	X								
u. Molybdenum, Total (7439-98-7)	X								
v. Manganese, Total (7439-90-0)	X								
w. Tin, Total (7440-31-0)	X								
x. Titanium, Total (7440-32-6)	X	0.177	1.30			1	MG/L	KG	

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CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2a-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe are discharged in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (of 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. MARK 'X' IF APPLICABLE	B. NO. OF ANALYSES	C. PERCENTAGE TESTED	B. MAXIMUM DAILY VALUE		C. MAXIMUM 30 DAY VALUE		D. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	E. CONCENTRATION	F. MASS	G. LONG TERM AVERAGE VALUE	H. NO. OF ANALYSES	
	(i) concentration	(ii) mass	(i) concentration	(ii) mass	(i) concentration	(ii) mass	(i) concentration	(ii) mass		(i) concentration	(ii) mass	(i) concentration	(ii) mass		
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M. Antimony, Total (7440-36-0)	X														
2M. Arsenic, Total (7440-38-2)	X														
3M. Beryllium, Total, 7440-41-7)	X														
4M. Cadmium, Total (7440-43-0)	X														
5M. Chromium, Total (7440-47-3)	X														
6M. Copper, Total (7440-50-0)	X														
7M. Lead, Total (7439-92-1)	X														
8M. Mercury, Total (7439-97-0)	X														
9M. Nickel, Total (7440-03-0)	X														
10M. Selenium, Total (7782-49-2)	X														
11M. Silver, Total (7440-32-6)	X														
12M. Thallium, Total (7440-28-0)	X														
13M. Zinc, Total (7440-66-6)	X														
14M. Cyanide, Total (67-12-0)	X														
15M. Phenols, Total	X														
<b>DIOXIN</b>															
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (1784-01-6)	X	DESCRIBE RESULTS													

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' B. GROSS AMT. PER UNIT PER DAY	C. GROSS AMT. PER UNIT PER DAY	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
			A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE			E. NO. OF ANAL. YRS	D. LONG TERM AVERAGE VALUE		F. NO. OF ANAL. YRS
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>													
IV. Acetone (107-02-8)		X											
2V. Acrylonitrile (107-13-1)			X										
3V. Benzene (71-43-2)			X										
4V. Bis (Chloro- methyl) Ether (542-89-1)			X										
5V. Bromoform (75-25-2)			X										
6V. Carbon Tetrachloride (56-23-5)			X										
7V. Chlorobenzene (108-80-7)				X									
8V. Chlorodi- bromomethane (124-48-1)				X									
9V. Chloroethane (75-00-3)				X									
10V. 2-Chloro- ethoxyethyl Ether (110-78-6)				X									
11V. Chloroform (67-00-3)			X										
12V. Dichloro- bromomethane (78-27-4)			X										
13V. Dichloro- difluoromethane (78-77-0)			X										
14V. 1,1-Dichloro- ethane (75-34-3)			X										
15V. 1,2-Dichloro- ethane (107-06-2)			X										
16V. 1,1-Dichloro- ethylene (75-38-4)			X										
17V. 1,2-Dichloro- propane (78-87-5)			X										
18V. 1,3-Dichloro- propane (542-78-6)			X										
19V. Ethylbenzene (100-41-4)			X										
20V. Methyl Bromide (74-89-9)			X										
21V. Methyl Chloride (74-87-3)			X										

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EPA I.D. NUMBER (copy from Item 1 of Form 1) MA 0003557  
OUTFALL NUMBER 010

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	A. TEST NO. TEST DATE	B. USE TEST OUT- DATE	C. USE TEST OUT- DATE	D. MAXIMUM DAILY VALUE (if available)	E. MAXIMUM 30 DAY VALUE (if available)	F. LONG TERM AVERAGE VALUE (if available)	G. NO. OF ANALYSES	H. CONCENTRATION	I. MASS	J. LONG TERM AVERAGE VALUE (if available)	K. NO. OF ANALYSES		
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>													
22V. Methyltene Chloride (78-09-2)		X											
23V. 1,1,2,2-Tetra-chloroethane (78-34-6)		X											
24V. Tetrachloro-ethylene (127-18-4)		X											
25V. Toluene (108-46-3)		X											
26V. 1,2-Trichloroethylene (156-60-8)		X											
27V. 1,1,1-Trichloroethane (2165-61)		X											
28V. 1,1,2-Trichloroethane (78-00-8)		X											
29V. Trichloroethylene (79-01-6)		X											
30V. Trichlorofluoromethane (75-69-4)		X											
31V. Vinyl Chloride (75-01-4)		X											
<b>GC/MS FRACTION - ACID COMPOUNDS</b>													
1A. 2-Chlorophenol (108-57-8)		X											
2A. 2,4-Dinitrophenol (120-63-2)		X											
3A. 2,4-Dimethylphenol (106-67-8)		X											
4A. 4,6-Dinitro-O-Cresol (534-62-1)		X											
5A. 3,4-Dinitrophenol (51-28-8)		X											
6A. 2-Nitrophenol (65-75-0)		X											
7A. 4-Nitrophenol (100-02-7)		X											
8A. P-Chloro-M-Cresol (59-60-7)		X											
9A. Pentachlorophenol (57-68-8)		X											
10A. Phenol (108-95-2)		X											
11A. 2,4,6-Tri-chlorophenol (58-06-2)		X											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	TEST METHOD NO. QUA.	D. DE- TERMINED TEST METHOD NO. QUA.	B. MAXIMUM DAILY VALUE		D. MAXIMUM 30 DAY VALUE (if available)		E. LONG TERM AVG. VALUE (if available)		N. NO. OF ANAL- YSES	E. CONCEN- TRATION	F. MASS	G. LONG TERM AVERAGE VALUE (if available)	H. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>													
18. Acenaphthene (93-32-9)		X											
28. Acenaphthylene (208-66-8)		X											
38. Anthracene (120-12-7)		X											
48. Benzo(d) [b]fluoranthene (92-67-5)		X											
58. Benzo(a)Anthracene (56-55-3)		X											
68. Benzo(a)Pyrene (50-32-8)		X											
78. 3,4-Benzo-fluoranthene (208-69-2)		X											
88. Benzo(a)Perylene (191-24-2)		X											
98. Benzo(a)Fluoranthene (207-08-8)		X											
108. Bis(2-Chloroethyl) Methane (111-01-1)		X											
118. Bis(2-Chloroethyl) Ether (111-64-4)		X											
128. Bis(2-Chloro-propyl) Ether (102-60-1)		X											
138. Bis(2-Ethylhexyl) Phthalate (117-81-7)		X											
148. 4-Bromo-phenyl Phenyl Ether (101-68-9)		X											
158. Butyl Benzyl Phthalate (85-68-7)		X											
168. 2-Chloro-naphthalene (91-68-7)		X											
178. 4-Chloro-phenyl Phenyl Ether (7008-72-3)		X											
188. Chrysene (218-01-6)		X											
198. Dibenzo(a,h)Anthracene (53-70-3)		X											
208. 1,2-Dichlorobenzene (95-60-1)		X											
218. 1,3-Dichlorobenzene (541-73-1)		X											

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EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 010

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF APPLICABLE	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		STAN. NO.	CAS NO.	MAXIMUM DAILY VALUE (1) CONCENTRATION (2) Mass	MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) Mass	LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) Mass	NO. OF ANAL- YSES		CONCEN- TRATION	MASS	LONG TERM AVERAGE VALUE (1) CONCEN- TRATION (2) Mass
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>											
22B. 1,4-Dichloro- benzene (108-49-7)	X										
23B. 3,3'-Dichloro- benzidine (91-64-1)	X										
24B. Diethyl Phthalate (84-68-2)	X										
25B. Dimethyl Phthalate (131-11-3)	X										
26B. DiN-Butyl Phthalate (94-74-2)	X										
27B. 2,4-Dinitro- toluene (121-14-8)	X										
28B. 2,6-Dinitro- toluene (900-20-2)	X										
29B. DiM-Octyl Phthalate (117-64-0)	X										
30B. 1,2-Diphenyl- Hydrazine (or Azo- benzene) (122-66-7)	X										
31B. Fluoranthene (200-44-0)	X										
32B. Fluorene (19-73-7)	X										
33B. Hexamethylen (111-74-1)	X										
34B. Hexa- methylbenzene (87-65-3)	X										
35B. Hexachloro- cyclohexadiene (77-47-0)	X										
36B. Hexachloro- cyclohexene (97-72-9)	X										
37B. Indene (1,3,5-cd) Pyrene (193-38-8)	X										
38B. Isophorone (78-69-1)	X										
39B. Propylidene (51-20-3)	X										
40B. Nitrobenzene (98-68-3)	X										
41B. N-Nitro- Sodiumphenylene (62-75-0)	X										
42B. N-Nitroso-di- N-Propylamine (121-64-7)	X										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" if applicable	3. EFFLUENT						4. UNITS	5. INTAKE (optional)			
		Avg. concen- tration	Max. concen- tration	5. MAXIMUM DAILY VALUE (if available) (i) concen- tration (ii) mass	6. MAXIMUM 30 DAY VALUE (if available) (i) concen- tration (ii) mass	ELONG TERM AVERAGE VALUE (if available) (i) concen- tration (ii) mass	NO. OF ANAL- YSES	4. CONCEN- TRATION	N MASS	5. LONG TERM AVERAGE VALUE (i) concen- tration (ii) mass	6. NO. OF ANAL- YSES	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
439. N-Nitro- sodiphenylamine (86-30-6)		X										
448. Phenanthrene (85-01-6)		X										
468. Pyrene (120-00-0)		X										
488. 1,2,4-Tri- chlorobenzene (120-62-1)		X										
<b>GC/MS FRACTION - PESTICIDES</b>												
1P. Aldrin (309-00-2)		X										
2P. $\alpha$ -BHC (319-84-6)		X										
3P. $\beta$ -BHC (319-85-7)		X										
4P. $\gamma$ -BHC (319-86-8)		X										
5P. $\delta$ -BHC (319-88-0)		X										
6P. Chlordane (197-74-9)		X										
7P. 4,4'-DDT (50-29-3)		X										
8P. 4,4'-DDE (72-63-9)		X										
9P. 4,4'-DDD (72-64-0)		X										
10P. Dieldrin (60-57-1)		X										
11P. $\alpha$ -Endosulfan (1115-29-7)		X										
12P. $\beta$ -Endosulfan (1115-29-7)		X										
13P. Endosulfan Sulfone (11031-07-8)		X										
14P. Endrin (72-20-8)		X										
15P. Endrin Aldehyde (17421-93-4)		X										
16P. Heptachlor (70-44-8)		X										

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EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		TEST NO. DATE	DE- TER- MINA- TION DATE	G.O.C. TEST DATE	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	C. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	D. LONG TERM AVE. VALUE (1) CONCENTRATION (2) MASS		E. NO. OF ANALYSES	F. CONCENTRATION	G. MASS
GC/MS FRACTION - PESTICIDES (continued)											
17P. Heptachlor Eponide (1024-87-3)		X									
18P. PCB-1242 (33489-21-0)		X									
19P. PCB-1254 (11097-09-1)		X									
20P. PCB-1221 (11104-28-2)		X									
21P. PCB-1232 (11141-18-6)		X									
22P. PCB-1248 (12672-29-0)		X									
23P. PCB-1260 (11098-02-0)		X									
24P. PCB-1018 (12674-19-2)		X									
25P. Toxaphene (8001-38-2)		X									

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.  
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

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OUTFALL NO  
011

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						4. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)		
	A. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30-DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERG. VALUE (1) CONCENTRATION (2) MASS	D. NO. OF ANALYSES	E. CONCENTRATION	F. MASS		G. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	H. NO. OF ANALYSES	I. CONCENTRATION	J. MASS	
a. Biochemical Oxygen Demand (BOD)	<2.0	0.0					1	MG/L	KG			
b. Chemical Oxygen Demand (COD)	<50.0	0.0					1	MG/L	KG			
c. Total Organic Carbon (TOC)	1.3	0.295					1	MG/L	KG			
d. Total Suspended Solids (TSS)	87.5	19.9	87.5	19.9	19.9	4.52	25	MG/L	KG			
e. Ammonia (as N)	0.13	0.030					1	MG/L	KG			
f. Flow	VALUE 0.06	VALUE	VALUE	VALUE	*	MGD		VALUE				
g. Temperature (winter)	VALUE 21.5	VALUE	VALUE	VALUE	*	°C		VALUE				
h. Temperature (summer)	VALUE 23	VALUE	VALUE	VALUE	*	°C		VALUE				
i. pH	MINIMUM 6.1	MAXIMUM 8.4	MINIMUM	MAXIMUM	*	STANDARD UNITS						

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'	3. EFFLUENT						4. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
		B. PRE-LICENSED CONCENTRATION	B. PRE-LICENSED MASS	B. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30-DAY VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERG. VALUE (1) CONCENTRATION (2) MASS	C. LONG TERM AVERG. VALUE (1) CONCENTRATION (2) MASS		E. CONCENTRATION	F. MASS	G. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	H. NO. OF ANALYSES	I. CONCENTRATION
a. Bromide (24959-67-9)	X	<2.0						1	MG/L	KG			
b. Chlorine, Total Residual	X												
c. Color	X	<5.0						1	CU				
d. Fecal Coliform	X												
e. Fluoride (16994-49-8)	X	0.89	0.202					1	MG/L	KG			
f. Nitrate-Nitrite (as N)	X	3.72	0.844					1	MG/L	KG			

## ITEM V.B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK X*	3. EFFLUENT						4. UNITS	5. INTAKE (if applicable)			
		B. MAXIMUM DAILY VALUE		C. MAXIMUM 24 DAY VALUE		D. LONG TERM AVERAGE VALUE			A. LONG TERM AVERAGE VALUE		G. NO. OF ANALYSES	
		(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass		(1) Concentration	(2) Mass		
E. Nitrogen, Total Organic (as N)	X	0.11	0.025					1	MG/L	KG		
F. Oil and Grease	X	<1.0						1	MG/L	KG		
G. Phosphorus (as P), Total (7723-14-0)			<0.10					1	MG/L	KG		
H. Radioactivity												
(1) Alpha, Total		X										
(2) Beta, Total	X	23.8±0.77	-					1	PC/L	-		
(3) Radium, Total		X										
(4) Radium 226, Total		X										
H. Sulfate (as SO <sub>4</sub> ) (14808-78-9)	X	12.3	2.79					1	MG/L	KG		
I. Sulfide (as S)	X	<1.0						1	MG/L	KG		
J. Sulfite (as SO <sub>3</sub> ) (14236-48-5)	X	<1.0						1	MG/L	KG		
K. Surfactants	X	<0.3						1	MG/L	KG		
L. Aluminum, Total (7429-90-0)	X	<0.075						1	MG/L	KG		
M. Barium, Total (7440-93-5)	X	<0.010						1	MG/L	KG		
N. Boron, Total (7640-42-8)	X	0.256	0.058	0.256	0.058	<0.0013		36	MG/L	KG		
O. Cobalt, Total (7440-48-6)	X	<0.010						1	MG/L	KG		
P. Iron, Total (7439-89-6)	X	0.418	0.095					1	MG/L	KG		
Q. Magnesium, Total (7439-95-4)	X	1.4	0.318					1	MG/L	KG		
R. Molybdenum, Total (7439-99-7)	X	0.715	0.162					1	MG/L	KG		
S. Manganese, Total (7439-96-6)	X	0.0309	0.007					1	MG/L	KG		
T. Tin, Total (1440-31-6)	X	<0.030						1	MG/L	KG		
U. Titanium, Total (1440-32-6)								1	MG/L	KG		

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CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocesses believe to be absent, if you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it is present. Mark "X" in column 2-c for each pollutant you discharge in concentrations of 10 ppb or greater. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (of 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A TEST OR SUS- PENDED SOLIDS	B. D.O. LEVEL PERCENT SATURATED	C. P.D. LEVEL PERCENT SATURATED	D. MAXIMUM DAILY VALUE (1) CONCENTRATION	E. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	F. LONG TERM AVERAGE VALUE (1) CONCENTRATION	G. NO. OF ANALYSES	H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (1) CONCENTRATION	K. MASS	L. NO. OF ANALYSES			
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M. Antimony, Total (7440-36-0)	X			< 0.050						1	MG/L	KG			
2M. Arsenic, Total (7440-38-2)	X			< 0.0050						1	MG/L	KG			
3M. Barium, Total (7440-41-7)	X			< 0.0050						1	MG/L	KG			
4M. Cadmium, Total (7440-43-9)	X			< 0.0050						1	MG/L	KG			
5M. Chromium, Total (7440-47-3)	X			< 0.020						1	MG/L	KG			
6M. Copper, Total (7440-50-0)	X			0.0498	0.01					1	MG/L	KG			
7M. Lead, Total (7439-92-1)	X			0.00837	0.002					1	MG/L	KG			
8M. Mercury, Total (7439-97-6)	X			< 0.0002						1	MG/L	KG			
9M. Nickel, Total (7440-02-0)	X			0.0159	0.004					1	MG/L	KG			
10M. Selenium, Total (7783-43-2)	X			< 0.005						1	MG/L	KG			
11M. Silver, Total (7440-32-6)	X			< 0.010						1	MG/L	KG			
12M. Thallium, Total (7440-28-0)	X			< 0.005						1	MG/L	KG			
13M. Zinc, Total (7440-06-6)	X			0.0409	0.009					1	MG/L	KG			
14M. Cyanide, Total (57-12-5)	X			< 0.01						1	MG/L	KG			
15M. Phenols, Total	X			< 0.10						1	MG/L	KG			
<b>DIOXIN</b>															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1784-01-6)		X		DESCRIBE RESULTS	Lead 0.002	Nickel 0.004									

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MATH 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		A. MAXIMUM DAILY VALUE (i) CONCENTRATION	B. MAXIMUM 30 DAY VALUE (ii) CONCENTRATION	C. LONG TERM AVERAGE VALUE (iii) CONCENTRATION	D. NO OF ANALYSES	E. CONCENTRATION	F. MASS		G. NO. OF ANALYSES	H. LONG TERM AVERAGE VALUE (i) CONCENTRATION	I. MASS
OCM3 FRACTION - VOLATILE COMPOUNDS											J. NO. OF ANALYSES
IV. Acetone (1107-02-8)	X	<0.020						1	MG/L	KG	
2V. Acrylonitrile (1107-13-1)	X	<0.020						1	MG/L	KG	
3V. Benzene (71-43-2)	X	<0.005						1	MG/L	KG	
4V. Bis (Chloromethyl) Ether (642-63-1)		X									
5V. Bromoform (75-25-2)	X	<0.005						1	MG/L	KG	
6V. Carbon Tetrachloride (56-23-5)	X	<0.005						1	MG/L	KG	
7V. Chlorobenzene (108-40-7)	X	<0.005						1	MG/L	KG	
8V. Chlorodibromomethane (124-48-1)	X	<0.005						1	MG/L	KG	
9V. Chloroethane (75-00-5)	X	<0.010						1	MG/L	KG	
10V. 2-Chloroethoxyethyl Ether (110-75-6)	X	<0.005						1	MG/L	KG	
11V. Chloroform (67-08-3)	X	<0.005						1	MG/L	KG	
12V. Dichlorobromomethane (75-27-4)	X	<0.005						1	MG/L	KG	
13V. Dichlorodifluoromethane (75-71-8)		X									
14V. 1,1-Dichloroethane (75-34-3)	X	<0.005						1	MG/L	KG	
15V. 1,2-Dichloroethene (107-06-2)	X	<0.005						1	MG/L	KG	
16V. 1,1-Dichloroethylene (75-35-4)	X	<0.005						1	MG/L	KG	
17V. 1,2-Dichloropropane (75-67-5)	X	<0.005						1	MG/L	KG	
18V. 1,3-Dichloropropylene (643-78-0)	X	<0.005						1	MG/L	KG	
19V. Ethylbenzene (100-41-4)	X	<0.005						1	MG/L	KG	
20V. Methyl Bromide (74-87-3)	X	<0.010						1	MG/L	KG	
21V. Methyl Chloride (74-87-3)	X	<0.010						1	MG/L	KG	

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
		A. TEST NO. OR DIVISION	B. CONCEN- TRATION	C. REL. LIVESTOCK CONC.	D. MAXIMUM DAILY VALUE (if available)	E. MAXIMUM 30 DAY VALUE (if available)	F. LONG TERM AVER. VALUE (if available)	G. NO. OF ANAL- YSES	H. CONCEN- TRATION	I. MASS	J. LONG TERM AVERAGE VALUE (if concen- tration)	K. NO. OF ANAL- YSES		
22V. Methylene Chloride (75-09-2)	X		<0.0058		0.001				1	MG/L	KG			
23V. 1,1,2,2-Tetra-chloroethane (79-34-8)	X		<0.005						1	MG/L	KG			
24V. Tetrachloro-ethylene (127-18-4)	X		<0.005						1	MG/L	KG			
25V. Tetraene (108-68-3)	X		<0.005						1	MG/L	KG			
26V. 1,2-Trans-Dihaloethylenes (186-60-8)	X		<0.005						1	MG/L	KG			
27V. 1,1,1-Trichloroethane (71-65-6)	X		<0.005						1	MG/L	KG			
28V. 1,1,2-Trichloroethane (79-00-8)	X		<0.005						1	MG/L	KG			
29V. Trichloro-ethylene (73-01-0)	X		<0.005						1	MG/L	KG			
30V. Trichloro-fluoromethane (75-69-4)		X												
31V. Vinyl Chloride (75-01-4)	X		<0.010						1	MG/L	KG			
GC/MS FRACTION - ACID COMPOUNDS														
1A. 2-Chloropheno (198-57-8)	X		<0.010						1	MG/L	KG			
2A. 2,4-Dichloro-phenol (120-63-2)	X		<0.010						1	MG/L	KG			
3A. 2,4-Dimethyl-phenol (106-67-0)	X		<0.010						1	MG/L	KG			
4A. 4,6-Dinitro-O-Cresol (B34-62-1)	X		<0.050											
5A. 2,4-Dinitro-phenol (81-28-0)	X		<0.050						1	MG/L	KG			
6A. 2-Nitrophenol (89-78-6)	X		<0.010						1	MG/L	KG			
7A. 4-Nitrophenol (100-02-7)	X		<0.050						1	MG/L	KG			
8A. P-Chloro-M-Cresol (89-60-7)	X		<0.010						1	MG/L	KG			
9A. Pentachloro-phenol (57-68-5)	X		<0.050						1	MG/L	KG			
10A. Phenol (108-98-2)	X		<0.010						1	MG/L	KG			
11A. 2,4,6-Tri-chlorophenol (88-68-2)	X		<0.010						1	MG/L	KG			

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' IF TESTED FOR THIS POLLUTANT	3. EFFLUENT						4. UNITS	5. INTAKE (optional)		
		A. TESTED FOR THIS POLLUTANT	B. MAXIMUM DAILY VALUE (if available) (i) CONCENTRATION (ii) MASS	C. MAXIMUM 30 DAY VALUE (if available) (i) CONCENTRATION (ii) MASS	D. LONG TERM AVERAGE VALUE (if available) (i) CONCENTRATION (ii) MASS	E. NO. OF ANAL- YSES	F. CONCEN- TRATION	G. MASS	H. LONG TERM AVERAGE VALUE (i) CONCENTRA- TION (ii) MASS	I. NO. OF ANAL- YSES	
<b>OC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>											
7B. Acenaphthene (83-52-9)	X										
2B. Acenaphthyrene (208-98-8)	X										
3B. Anthracene (120-12-7)	X										
4B. Benzo(a)anthracene (92-67-8)	X										
5B. Benzo(a)Anthracene (36-65-3)	X										
6B. Benzo(a)Pyrene (50-32-8)	X										
7B. 3,4-Benzofluoranthene (208-99-2)	X										
8B. Benzo(a)Phenanthrene (191-24-2)	X										
9B. Benzo(a)Fluoranthene (207-08-9)	X										
10B. Bis(2-Chloroethyl) Methane (111-61-1)	X										
11B. Bis(2-Chloroethyl) Ether (111-64-6)	X										
12B. Bis(2-Chloroethyl) Ether (102-00-1)	X										
13B. Bis(2-Ethylhexyl) Phthalate (117-81-7)	X										
14B. 4-Bromo-phenyl Phenyl Ether (101-05-9)	X										
15B. Butyl Benzyl Phthalate (85-68-7)	X										
16B. 2-Chloronaphthalene (91-08-7)	X										
17B. 4-Chlorophenyl Phenyl Ether (7000-72-3)	X										
18B. Chrysene (218-01-0)	X										
19B. Dibenz(a,h)Anthracene (93-70-3)	X										
20B. 1,2-Dichlorobenzene (541-73-1)	X										
21B. 1,3-Dichlorobenzene (541-73-1)	X										

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1) / OUTFALL NUMBER  
MA 0003557 011

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT						4. UNITS	5. INTAKE (continued)			
		3000 CONC. PPM	300 CONC. PPM	300 CONC. PPM	3. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	3. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	3. LONG TERM AVER. VALUE (1) CONCENTRATION (2) MASS		5. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	5. NO. OF ANALYSES	5. NO. OF ANALYSES	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
228. 1,4-Dichloro-benzene (106-49-7)	X											
238. 3,5'-Dichloro-benzoquinone (91-64-1)	X											
248. Diethyl Phthalate (84-68-2)	X											
258. Dimethyl Phthalate (131-11-3)	X											
268. Di-N-Butyl Phthalate (84-74-2)	X											
278. 2,4-Dinitro-toluene (121-14-2)	X											
288. 2,6-Dinitrotoluene (909-20-2)	X											
298. Di-N-Octyl Phthalate (117-64-0)	X											
308. 1,2-Clohexyl-hydrazine (or Anilinone) (122-68-7)	X											
318. Fluoranthene (208-44-0)	X											
328. Fluorene (86-73-7)	X											
338. Hexamethylenes (115-74-1)	X											
348. Hexachlorobutadiene (97-68-3)	X											
358. Hexachlorocyclohexadiene (77-47-0)	X											
368. Hexachloro-ethane (97-72-1)	X											
378. Indeno (1,2,3- <i>bc</i> ) Pyrene (193-39-6)	X											
388. Naphthalene (78-09-1)	X											
398. Naphthalene (91-20-3)	X											
408. Nitrobenzene (95-58-0)	X											
418. N-Nitroso-dimethylamine (103-78-6)	X											
428. N-Nitroso-di-N-Propylamine (101-04-7)	X											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"	3. EFFLUENT	4. UNITS			5. INTAKE (optional)		
			A. MAXIMUM DAILY VALUE	B. MAXIMUM 30 DAY VALUE	C. LONG TERM AVEG. VALUE	D. NO. OF ANAL. TESTS	E. CONCEN- TRATION	F. MASS
			(i) available (ii) conc. ratio (iii) mass concentration	(i) available (ii) mass concentration				
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>								
438. N-Nitro- sodiphenylamine (186-30-6)	X							
449. Phenanthrene (195-01-6)	X							
458. Pyrene (1129-00-0)	X							
465. 1,2,4-Tri- chlorobenzene (120-02-1)	X							
<b>GC/MS FRACTION - PESTICIDES</b>								
1P. Aldrin (308-00-2)	X							
2P. $\alpha$ -BHC (319-84-6)	X							
3P. $\beta$ -BHC (319-85-7)	X							
4P. $\gamma$ -BHC (38-69-6)	X							
5P. $\delta$ -BHC (310-66-6)	X							
6P. Chlordane (57-74-8)	X							
7P. 4,4'-DDT (60-29-3)	X							
8P. 4,4'-DDE (72-66-9)	X							
9P. 4,4'-DDD (72-64-8)	X							
10P. Dieldrin (60-67-1)	X							
11P. $\alpha$ -Endosulfan (115-29-7)	X							
12P. $\beta$ -Endosulfan (115-29-7)	X							
13P. Endosulfan Butanoate (1031-07-6)	X							
14P. Endrin (72-20-6)	X							
15P. Endrin Aldehyde (7421-93-4)	X							
16P. Heptachlor (76-44-6)	X							

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER  
MA 0003557 011

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFLUENT												4. UNITS		5. INTAKE (optional)		
		3.95 PPM WATER	D. 30- DAY AVG. PPM WATER	E. 90- DAY AVG. PPM WATER	B. MAXIMUM DAILY VALUE		C. MAXIMUM 30 DAY VALUE (if available)		D. LONG TERM AVERG. VALUE (if available)		E. NO. OF ANALYSES	F. CONCENTRATION	G. MASS	H. LONG TERM AVERAGE VALUE (if available)	I. NO. OF ANALYSES			
			(i) concentration	(ii) mass	(i) concentration	(ii) mass	(i) concentration	(ii) mass		(i) concentration	(ii) mass	(i) concentration	(ii) mass					
<b>GC/MS FRACTION - PESTICIDES (continued)</b>																		
17P. Heptachlor Eponode (1024-57-3)		X																
18P. PCB-1242 (103469-21-0)		X																
19P. PCB-9284 (11007-09-1)		X																
20P. PCB-1221 (11104-29-2)		X																
21P. PCB-1232 (11141-19-0)		X																
22P. PCB-1248 (112672-29-0)		X																
23P. PCB-1290 (11006-02-0)		X																
24P. PCB-1018 (112674-11-0)		X																
25P. Toxaphene (8001-38-2)		X																

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Form  
**2F**  
NPDSS



# **Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity**

**United States Environmental Protection Agency  
Washington, DC 20460**

**Paperwork Reduction Act Notice**  
Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## **I. Outfall Location**

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the enclosing water body.

A. Outfall Number (list)	B. Latitude			C. Longitude			D. Receiving Water (name)
004	41°	56'	30	70°	35'	00	Cape Cod Bay
005	41°	56'	30	70°	35'	00	Cape Cod Bay
006	41°	56'	30	70°	35'	00	Cape Cod Bay
007	41°	56'	30	70°	35'	00	Cape Cod Bay

Note: Coordinates are for Pilgrim Station. Outfalls listed above are separate locations within 15 seconds of each other

#### **• II. Improvements**

- A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

- B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

### **III. Site Drainage Map**

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall; each known past or present areas used for outdoor storage or disposal of significant materials; each existing structural control measure to reduce pollutants in storm water runoff; materials loading and access areas; areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

**IV. Narrative Description of Pollutant Sources**

- A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
004	Unknown	9 Acres	006	Unknown	1.5 Acres
005	Unknown	2 Acres	007	Unknown	17.5 Acres

- B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

See attached - Management Practices

- C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
004	See attached - Management Practices	xx
005	-	xx
006	-	xx
007	-	xx

**V. Nonstormwater Discharges**

- A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)

Mike Bellamy, Site Vice President

Signature

Date Signed

12/1/99

- B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

Visual observations have been made of outfalls 004, 005, 006, and 007, and no non-stormwater discharges were identified. However, outfall 005 receives plant process water from the neutralizing sump waste, heating system/demineralized water, and hydrogen system scrubber discharge.

**VI. Significant Leaks or Spills**

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

No significant leaks or spills of toxic or hazardous pollutants have occurred at the facility within the past three years.

Continued from Page 2

EPA ID Number (copy from Item 1 of Form 1)  
MA 0003557

### VII. Discharge Information

A,B,C, & D: See Instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.

Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E: Potential discharges not covered by analysis - Is any toxic pollutant listed in table 2F-2, 2F-3 or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

Yes (list all such pollutants below)

No (go to Section IX)

### VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

Yes (list all such pollutants below)

No (go to Section IX)

### IX. Contract Analysis Information

Were any of the analysis reported in Item VII performed by a contract laboratory or consulting firm?

Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed

### X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (type or print)

Mike Bellamy, Site Vice President

C. Signature



B. Area Code and Phone No.

(508) 830-8100

D. Date Signed

12/1/99

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**Part A -** You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite		
Oil and Grease	< 1.4 ppm	N/A			1	Industrial Equipment
Biological Oxygen Demand (BOD5)						
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	0.80 ppm				1	Sediment Runoff
Total Nitrogen						
Total Phosphorus						
pH	Minimum 6.1	Maximum	Minimum	Maximum	1	

**Part B.** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outlet. See the instructions for additional details and requirements.

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm mea- sured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)

7. Provide a description of the method of flow measurement or estimate.

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**Part A -** You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each cutoff. See instructions for additional details.

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

<b>1. Date of Storm Event</b>	<b>2. Duration of Storm Event (in minutes)</b>	<b>3. Total rainfall during storm event (in inches)</b>	<b>4. Number of hours between beginning of storm mea- sured and end of previous measurable rain event</b>	<b>5. Maximum flow rate during rain event (gallons/minute or specify units)</b>	<b>6. Total flow from rain event (gallons or specify units)</b>

7. Provide a description of the method of flow measurement or estimate.

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.**

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite		
Oil and Grease	< 1.4 ppm	N/A			1	Industrial Equipment
Biological Oxygen Demand (BOD <sub>5</sub> )						
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	0.80 ppm				1	Sediment Runoff
Total Nitrogen						
Total Phosphorus						
pH	Minimum	7.1	Maximum	Minimum	Maximum	1

**Part B.** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each cutoff. See the instructions for additional details and requirements.

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm mea- sured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)

**7. Provide a description of the method of flow measurement or estimate.**

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each cutoff. See instructions for additional details.**

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each cutoff.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm mea- sured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)

7. Provide a description of the method of flow measurement or estimate.

## MANAGEMENT PRACTICES

### (Storm Water)

## INVENTORY OF EXPOSED MATERIALS

Most materials used on site are contained indoors and, therefore, would not be exposed to precipitation. All radioactive wastes are handled and stored according to Nuclear Regulatory Commission (NRC) regulations. Hazardous wastes are stored in locked Haz-Stor Buildings (self contained sumps) located on the site by the Fire Water Storage Tanks inside a fenced-in area according to existing RCRA requirements and policies. Potential radioactive hazardous waste is transported to the Trash Compaction Facility (TCF) (building S14). There the material is classified, and if radioactive, it is stored in the Hazmat Room at the TCF. If it is nonradioactive it is transported back on-site to the Haz-Stor Buildings. No such waste is stored to allow exposure to the weather.

Fuel oil, lube oil and transformer oil are handled and stored according to the Oil Spill Prevention Control and Countermeasure (SPCC) plan (PNPS Procedure Number 1.3.22). Underground storage tanks (USTs), aboveground storage tanks (ASTs) and transformers are located within appropriate containment structures e.g containment wells for ASTs and rock traps for USTs and transformers. The tanks noted on Table 1 do not have special containment due to site constraints.

This section focuses specifically on those materials with a potential for being exposed to precipitation. Table 1 lists those materials which could potentially be exposed to precipitation and indicates controls and procedures that limit such exposure and prevent storm water pollution.

## SUMMARY OF POTENTIAL POLLUTANT SOURCES

Description of potential pollutant sources at the following areas are related to the following activities:

- loading/unloading operations
- outdoor storage activity
- outdoor processing or manufacturing
- significant dust generation
- on-site waste disposal

A discussion of such potential pollutant sources is presented below. Table 1 should be referenced for an inventory of potentially exposed materials stored and/or handled in these areas.

TABLE 1

Inventory of Exposed Materials  
Entergy Nuclear Generation Company  
Pilgrim Nuclear Power Station  
Plymouth, Massachusetts

Material	Location	Potential for Exposure	Controls
Wood refuse	Dumpster North of S102 (O & M Building)	Overfilling dumpster, when dumpster cover is open, waste exposed to precipitation	Check level regularly, maintain cover in closed position except during filling or emptying*
Metal refuse	Dumpster North of S102 (O & M Building)	Overfilling dumpster, when dumpster cover is open, waste exposed to precipitation	Check level regularly, maintain cover in closed position except during filling or emptying*
Cardboard/ Compactable Material	Dumpster North of S102 (O & M Building)	Overfilling dumpster, when dumpster cover is open, waste exposed to precipitation	Check level regularly, maintain cover in closed position except during filling or emptying*
Diesel Oil	UST, T400, North of S102 (O & M Building)	Overfilling tank, spill while refilling tank	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin
Diesel Oil	USTs, T160A & B, East of S10 (Blackout Emergency Diesel Generator Building)	Overfilling tank, spill while refilling tank	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin
Diesel Oil	USTs, T120A & B, North of S4 (Emergency Diesel Generator Building)	Overfilling tank, spill while refilling tank	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin
Heating Oil	AST, Secondary Access Point Stairs at Building S106	Overfilling tank, spill while refilling tank	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin
Heating Oil	ASTs, East of S110 (Warehouse)	Overfilling tank, spill while refilling tank	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin
Transformer Oil	Transformer, South of S2 (Turbine Building)	Leak of transformer	Use nearby spill kit, place absorbent booms or sandbags around nearby catch basin

TABLE 1 (Continued)

**Inventory of Exposed Materials**  
**Entergy Nuclear Generation Company**  
**Pilgrim Nuclear Power Station**  
**Plymouth, Massachusetts**

Material	Location	Potential for Exposure	Controls
Scrap Metal	Laydown yard, East of S109 (Warehouse)	Exposed to weather	Remove, cover with tarps or store indoors*
Scrap Metal	Storage yard, South of S109 (Warehouse) outside fenceline	Exposed to weather	Remove, cover with tarps or store indoors*
Waste Paints	Haz-Stor Building, near Fire Water Tanks (nonradioactive)  TCF yard, South of S14(radioactive)	Spills during loading into storage shed	Place absorbent booms around containers when stored temporarily outdoors*
Acids (Including lead-acid batteries)	Haz-Stor Building, near Fire Water Tanks (nonradioactive)  TCF yard, South of S14(radioactive)	Spills during loading into storage shed	Place absorbent booms around containers when stored temporarily outdoors*
Recycled Oil/Oily Rags	Haz-Stor Building, near Fire Water Tanks (nonradioactive)  TCF yard, South of S14(radioactive)	Spills during loading into storage shed	Place absorbent booms around containers when stored temporarily outdoors*

Note: \* Recommended action  
See SPCC plan for specific actions to execute in the event a spill occurs

## **1. Loading and Unloading Operations**

The facility has several areas where loading and unloading of materials take place. These include the operations and maintenance receiving area and the fuel oil bulk delivery areas.

### **1.1 Operations and Maintenance Building Receiving Area**

The three loading docks located at the eastern end of the Operations and Maintenance Building receive the majority of materials except for fuel delivery and extremely large items. Because the facility is a electrical generation station, no finished products are shipped from facility. Materials which are unloaded at the three bays include dry goods, tools, cable, construction material and packaged chemicals. No waste chemicals are shipped from these docks. During the unloading process, materials are not exposed to rainfall. Load levelers with rubber accordion-like skirts seal the open doors of the trucks to the bays so that no material can be released during the unloading operation. There are no drains in the dock area or in the entire building. Any spills in the Operations and Maintenance Building are contained according to Entergy procedures by using strategically located spill kits.

### **1.2 Fuel Oil Bulk Delivery Areas**

Fuel oil is delivered to the facility in bulk oil tank trucks. Tank trucks are not allowed into the facility until they have been visually inspected for signs of leakage and corrections are made if necessary. Visual inspections for leakage, proper storage of hoses and equipment and valve positioning are also performed prior to moving a tank truck from one location to another.

At the refill locations, level measurements are taken of the tanks before and after filling to determine the amount of fuel in the tank to prevent overfilling. Any spills will be contained according the SPCC plan.

## **2. Outdoor Storage Areas**

Few materials are stored in outside areas at the PNPS facility. Clean empty storage containers and metals are stored in three storage areas, the area east of Warehouse S109, the area south of S109, and in the paved areas adjacent to the TCF. Roll-off containers containing metal, wood and compatible materials are stored outside in an area north of Building S102, the Operations and Maintenance Building. All hazardous and radioactive materials are stored in containment areas within buildings. When stored outside, radiological wastes are stored in weather-proof containers such as OSSCs.

### **3. Outdoor Manufacturing or Processing**

**There are no outdoor manufacturing or processing areas at this facility.**

### **4. Dust or Particulate Generating Processes**

**No dust or particulate generating processes are performed in outdoor areas. When sandblasting is performed, all work is performed within a building. All grit is stored in the building until it is disposed.**

### **5. On-Site Waste Disposal**

**There is no on-site waste disposal at this facility.**

### **6. Hazardous/Mixed Waste Storage**

**All hazardous waste is stored indoors at PNPS according to federal and state requirements and specific Entergy protocols including its "Chemical Control Program" and "Response to Hazardous Material Incidents". Hazardous wastes are temporarily stored in a designated area within the Operations and Maintenance Building (S102). The accumulation area is inspected weekly and materials are transported to the Haz-Stor Buildings as needed.**

**Potentially radioactively contaminated hazardous (mixed) waste is stored in the TCF. An isotopic test is performed on the potentially mixed waste to determine its level of radioactive contamination. If the hazardous waste is not radioactive, it is transported to a designated metal safety storage shed (with containment sumps) located near the Fire Water Tanks. Acids, waste paint, recycled oil and oily rags are stored in three separate safety storage sheds. These materials are removed and disposed of within 90 days. All radioactive wastes are handled and stored indoors at the facility according to NRC regulations.**

**The hazardous-mixed waste storage area is a 1000 square foot room within the TCF. There are 7-inch high berms at each doorway to prevent liquids from leaving the area. The reinforced concrete floor is free of cracks and is sealed with a two-part epoxy. The maximum volume that can be stored in the area is 136 55-gallon drums or 7,500 gallons. The containment capacity is 4000 gallons (or greater than five times the required 10% of the total volume stored, i.e. 750 gallons).**

## **MEASURES AND CONTROLS**

**Storm water management controls have been implemented to minimize exposure or identify potential sources to storm water:**

- good housekeeping
- preventive maintenance
- spill prevention and response procedures
- inspections
- employee training
- sediment and erosion control
- management of runoff

### **1. Good Housekeeping**

Entergy makes every effort to maintain a clean and orderly facility. These efforts include storage practices that minimize the exposure of potential pollutants to precipitation, implementation of regular site inspection and cleanup procedures, maintenance of an up-to-date inventory of stored materials, and training employees with regard to good housekeeping practices.

Materials identified as potential pollutants are unloaded/loaded and/or stored either indoors or, if stored outdoors, are located under cover of a roof or canopy. Containment dikes are provided as required.

Entergy maintains an up-to-date inventory of materials stored on-site. Entergy ensures that all drums and containers of chemicals, lubricants, and cleaners are clearly labelled. These labels identify the material stored in the container, the vendor who supplied it, and the area in which the material is to be used. Drums of waste materials are also labelled in accordance with applicable hazardous waste regulations.

### **2. Preventive Maintenance**

Preventive maintenance is performed on a daily basis at the PNPS. Equipment and machinery inside the building are inspected and maintained regularly by maintenance personnel to ensure that malfunctions that could result in the release of potential pollutants to the environment do not occur. Preventive maintenance is also performed outside the buildings, in areas where the exposure of potential pollutants to storm water is more likely to occur. The condition of storage containers, containment dikes, and canopies in material storage areas are inspected on a regular basis. Dumpsters are checked for overflow of metal, wood and other debris. Facility roof drains, catch basins, trench drains and storm water outfalls are also periodically inspected and maintained.

### **3. Spill Prevention and Response Procedures**

Identified are areas where spills (which can contribute pollutants to storm water) can occur, the location to which the spills would drain, and procedures for cleaning up the spill. The PNPS SPCC plan provides detailed and specific actions to be executed in the event of a major spill. This section summarizes pertinent information from the SPCC plan. The SPCC plan is the official document that should be referred to for response actions and complied with in the event of a major spill.

#### **3.1 Spills Occurring at Shipping/Receiving Areas**

Any spill occurring at the shipping/receiving areas would remain within the indoor loading bay and not reach any storm water drains.

#### **3.2 Spills Occurring at Hazardous Waste Storage Area and Other Indoor Storage Areas**

Any leaks or spills occurring in the hazardous waste storage area would be contained within its containment dike. The estimated capacity of the dike is 4000 gallons. The maximum storage capacity of this storage area is 136 55-gallon drums.

There is potential for spills to occur outside the containment dike during the loading and/or unloading of drums at this storage area. Special care is taken during such operations to avoid spills. Drums are tightly sealed and fully labelled prior to transfer to the storage area.

Spills could occur at the chemical storage areas within the buildings. Since there are no floor drains in the buildings, such spills would be contained within the building and would not be expected to enter any storm drainage system. In the event of a spill, nearby spill kits would be used to contain the spill.

#### **3.3 Spills Occurring at Oil Storage Areas**

Any spills occurring at oil storage areas would be contained according to procedures in the SPCC plan. Absorption booms, pillows, pads and other materials are stored in spill kits located at various locations on site. In the event of a spill, these materials would be used to contain the spill. Catch basins located in the vicinity of the tanks will be blocked by sandbags if it becomes apparent that oil will reach the basin.

### **4. Inspections**

PNPS Station Services personnel perform daily and weekly site walks which include inspections of storage and loading areas. These personnel identify and rectify potential housekeeping deficiencies. On a monthly basis, PNPS managers inspect specific areas of the Site.

## **5. Employee Training**

PNPS personnel are trained to identify spills, leaks, or potential housekeeping issues as part of the routine General Employee Training (GET).

## **6. Sediment and Erosion Control**

The majority of the PNPS site is relatively flat and paved so that areas of potential for erosion are limited to the hillsides to the west and south of the facility and any stockpiles of soil from construction activities. The steep hillside between the upper parking lot and the western fence line is heavily vegetated so that potential soil erosion is minimized. At the base of the hill, between the outside fence and inside fence gravel and geotextile have been laid to prevent erosion on the steep slopes. A series of paved open channels, gravel ditches and culverts collect and direct the runoff from these areas either towards outfall 004 in the northwest corner of the site or to the wetland in the southeast corner of the site. These collection channels direct runoff from the surrounding areas away from any industrial activity at the facility.

Other areas of high potential erosion are areas where soil is stockpiled during construction. At the location of the low level radwaste facility, the area is cleared of vegetation with a stockpile of soil in the middle. Runoff (and any eroded sediments) from the open area should not enter the main parking lot because there is a strip of grass and curbing between the two areas. A thick concrete wall prevents any runoff from entering the TCF yard from the open area. Any runoff from this open construction area would flow by sheet flow to the riprap breakwater or would be channelized down the access road to the boat landing area. The layer of gravel on the access road minimizes any erosion that would occur in this area. It should be noted that this area is not part of the industrial operations at the facility and is essentially isolated from the site storm water collection system.

PNPS is located directly on the shoreline of Cape Cod Bay and as a result, some sand from beach erosion is deposited along the northern perimeter of the site during storms.

## **7. Management of Runoff**

Storm water runoff at this facility is collected within the storm drainage collection system and routed to Cape Cod Bay by way of the four major storm water outfall structures. The storm water drainage system, as constructed, effectively manages storm water runoff without resulting in excessive erosion and/or flooding problems. Of note is the drainage system for the recently installed parking lot constructed at the east side of the facility. The drainage system was designed to eliminate any increase in runoff flow due to the new pavement. Storm water runoff from the new parking area is directed to a series of leaching pits, manmade wetlands and detention basins located adjacent to the existing narrow wetland between the new and main parking lots.