State Permit No. Federal permit No. MA0003557 Page 1 of 15 Modification No. 1

MODIFICATION OF AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 <u>et seq</u>.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

> Boston Edison Company Pilgrim Nuclear Power Station 800 Boylston Street Boston, Massachusetts 02199

is authorized to discharge in accordance with effluent limitations, monitoring requirements and other conditions set in the previous permit, except as set forth herein and listed as follows:

1. Page 9, Par. I.A.4 has been changed for the new flow rate for Discharge 003.

2. Page 9a, Par. I.A.4a has been added for the new Discharge 008.

Page 2, Par. I.A.1.a.(2) change word from "daily" to "monthly" (typographical error).

Page 5, Par. I.A.m. delete "shall" and "circulating" (typographical errors) and add " 'no more than' 20,000 gallon batches " (clarification).

5. Page 7, Par I.A.2.e add "from April 1 to November 30 each year" (clarification).

Page 12, Par. I.A.7.i clarify Discharge #005 contents.

This modifies the permit issued on April 29, 1991.

This permit modification shall become effective on the date of issuance.

This permit modification and the authorization to discharge shall expire at midnight, April 29th, 1996.

signed this 302 day of August 1994

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Director Water Management Division Environmental Protection Agency Region I Boston, MA

Director of the Office of Watershed Management Department of Environmental Protection Commonwealth of Massachusetts Boston, MA

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1. Except as specified in Paragraphs 1 through 8 herein, the permittee shall not discharge to Cape Cod Bay, a final effluent to which it has added any pollutants.
 - a. Chlorine may be used as a biocide. No other biocide shall be used without explicit approval from the Regional Administrator and the Director.
 - (1) The chlorination cycle for the circulating cooling water systems shall not exceed two hours in any one day for one cooling water point source unless the discharger demonstrates to the EPA and the State that discharge for more than two hours is required for macroinvertebrate control. The Total Residual Oxidant concentration shall not exceed 0.10 mg/l in the plant discharge prior to release into Cape Cod Bay.
 - (2) Continuous chlorination of each service water system may be used for macroinvertebrate control. The Total Residual Oxidant concentration shall not exceed a maximum daily concentration of 1.00 mg/l nor exceed an average monthly concentration of 0.50 mg/l in the service water discharge prior to mixing with any other stream.
 - (3) The use of any molluscicide for controlling macroinvertebrate growths must be approved by the Regional Administrator and the State before implementation.
 - b. The discharges shall not jeopardize any Class SA use of Cape Cod Bay and shall not violate applicable water quality standards.
 - c. This permit shall be modified, revoked or reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 207(a)(2) of the Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
 - (2) controls any pollutant not limited by this permit.

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

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The term "EPA" means the Regional Administrator of d . Region I of the U. S. Environmental Protection Agency or his designee and the term "State" means the Director of the Divison of Water Pollution Control of the Massachusetts Department of Environmental Protection or his designee.

There shall be no discharge of polychlorinated biphenyl e. compounds commonly used for transformer fluid.

£. 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.

The rate of change of Discharge 001 Delta-T shall not g. exceed: (1) a 3 °F rise or fall in temperature for any 60-minute period during normal steady state plant 1 operation and (2) a 10 °F rise or fall in temperature for any 60-minute period during normal load cycling. Variation in inlet temperature shall not be considered as an operational rise or fall of temperature. Normal startup temperature rise shall not exceed the maximum allowed in Subparagraph I.A.2.a below. In maximum allowed in Subparagraph I.A.2.a below. In the event of a reactor emergency shutdown, the allowable decrease of 10° F/hour may be exceeded. In such an event, the permittee shall report the occurrence in the next monthly DMR to EPA and the State.

The thermal plumes from the station: h.

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- (1) shall not deleteriously interfere with the natural movements, reproductive cycles, or migratory pathways of the indigenous populations within the water body segment;
 - (2) shall have minimal contact with the surrounding shorelines.

It has been determined, based on engineering judgment, that the circulating water intake structures presently employs the best technology available for minimizing adverse environmental impact. Any change in the location, design or capacity of the present structure shall be approved by the Regional Administrator and the Director. The present design shall be reviewed for conformity to regulations pursuant to Section 316(b) of the Act when was such are promulgated....

j. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.

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k. All existing manufacturing, commerical, mining, and silvacultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):

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- (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (as defined in 40 CFR §122.2) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (a) One hundred micrograms per liter (100 ug/l);
 - (b) Two hundred micrograms per liter (200 ug/l)

for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4 , 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (c) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 - (d) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
- (2) That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

(a) Five hundred micrograms per liter (500 ug/1);

- (b) One milligram per liter (1 mg/l) for antimony;
- (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
- (d) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).

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(3) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

The discharge of radioactive materials shall be in accordance with the Nuclear Regulatory Commission operational requirements (10 CFR 20 and NRC Technical Specifications set forth in facility operating license, DPR-35).

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Sodium pentaborate shall be discharged in no more than 20,000 gallon batches at a maximum concentration of 16,500 mg/l calculated as boron. The boron concentration shall not exceed 1.0 mg/l (by calculation) above background in Discharge 001 at the point of release into Cape Cod Bay. The maximum concentration of boron in the storage tanks and/or dilution provided by the cooling water pumps' flow shall be controlled, if necessary to satisfy the 1.0 mg/l boron discharge criteria. (Nominally the maximum flow rate from the storage tanks into Discharge 001 will not exceed 200 gpm to satisfy the 1.0 mg/l boron criteria.) A cooling-water pump must be in operation during a sodium pentaborate release to ensure proper sodium pentaborate dilution. Each release of boron will be reported in the appropriate DMR providing the date (s) of discharge, gallons discharged, the concentration of the boron in the tank before release, and the calculated boron concentration in Discharge 001 before mixing with Cape Cod Bay water.

n. Sodium nitrite shall be discharge from the station closed loop cooling water systems and heating system into Discharge 011 and from fire water storage tanks, condensate storage tanks, and demineralized water storage tanks into Discharge 001. The discharge of sodium nitrite.shall not exceed 2.0 mg/l (by calculation) in Discharge 001 before release into Cape Cod Bay water. Each release shall be reported in the appropriate DMR providing the gallons discharged, the concentration of the sodium nitrite in the water discharged, and the calculated sodium nitrite in Discharge 001 before mixing with Cape Cod Bay Water.

Sand may be removed from the concrete surfaces of the intake structure when the sand buildup interferes with the normal operation of the rotating screen equipment posing a threat to the mechanical components. The sand may be disposed of on the land. Each such sand removal shall be reported in the appropriate DMR.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 2. During the period beginning Effective Date and lasting through Expiration Date, the permittee is authorized to discharge from outfall(s) serial number(s) 001, Condenser Cooling Water.
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Lim	itations	Monitoring Requirements		
	Avg. Monthly	Max. Daily	Measurement Frequency	Sample Type	
Flow, MGD	447.0	510.0	Continuously*	Daily Avg. & Max.	
Total Residual Oxidants (mg/1)	•	0.1	When in use	Grab	
Temperature (Maximum), T _{Max} , °F		102	Continuously	Daily Max.	
Temperature Rise (Maximum), Delta-T,	•F** -	32	Continuously	Daily	

The flow rate shall be estimated from pump capacity curves and operational hours. Temperature Rise is defined as the difference between the cooling water discharge temperature and the intake temperature.

- b. The pH shall not vary by more than 0.5 standard units from that of the intake water.
- c. There shall be no discharge of visible oil sheen, foam, or floating solids in other than trace amounts except in cases of condenser leak seeking and sealing. In such cases, the use of a reasonable quantity of biodegradable and non-toxic material may be used to the extent necessary to find and/or seal the leak. Each month the permittee shall report the time and estimated amounts of such material used.
- d. Samples taken in compliance with the monitoring requirements specified above shall be at any representative point in the discharge canal prior to release into Cape Cod Bay.

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e. The permittee shall maintain a barrier net as near to the terminal end of the discharge canal as good engineering practice wi.11 allow. Except for changing nets or other barrier maintenance, it shall prevent fish entry into the canal from April 1 to November 30 each year when the plant is operating.

If EPA or the State determine that the physical barrier f. net required by Subparagraph "e" above does not effectively prevent the mortality of menhaden or other finfish, the permittee shall, from the date of said determination, maintain an average dissolved nitrogen saturation level of less than 115%. The dissolved nitrogen saturation level is defined as the dissolved nitrogen saturation at the surface layer of the canal at the point of discharge into the bay during periods of time when a school of menhaden or other finfish susceptible to mortality from gas bubble disease is detected in or near (within 0.5 mile of the canal) the discharge canal by the program developed under Paragraph 8(b) below. After it has been determined by representatives of the permittee, EPA and the State that fish as mentioned above are within the prescribed area, the permittee shall as soon as possible take the necessary steps to reduce the dissolved nitrogen saturation level to the permitted level.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 3. During the period beginning Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall(s) serial number(s) 002. Thermal Backwash for Bio-fouling Control.
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitori	Monitoring Requirements	
	Avg. Monthly	Max. Daily	Measuremen Frequency	t Sample Type	
Flow, MGD	-	255.0	When in u	ise Estimate*	
Temperature (Maximum), °F		120	Continuo	and Max.	

* Flow rate is to be estimated as if backflushing took place for 24 continuous hours.

- b. The discharge shall not be more frequent than three hours a day twice a week for those periods when required the plant to operate most efficiently. Infrequent, abnormal environmental conditions may require this frequency to be doubled. These conditions will be described in the subsequent monthly DMR submittal.
- c. The pH shall not vary more than 0.5 standard units from that of the intake water.
- d. There shall be no discharge of floating solids, oil sheen, or visible foam in other than trace amounts.
- e. Samples taken in compliance with the monitoring requirements specified above shall be taken at some representative point prior to discharge into the intake canal.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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- 4. During the period beginning Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall serial number(s) 003, Intake Screen Wash (Fish Sluice Water) effluent subject to the following conditions:
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations	Monitoring Requi	rements
	Avg. Monthly Max. Daily	Measurement	Sample
	[14] M. C. Martin, "A statistic structure of the structure structure structure structures", and the structure structure structure structure structure structure structure structures and structures."	Frequency	Type
Flow - MGD	2. Real 4.1 COM 124 4.1 COM 14 CO	Daily	Estimate

- b. The temperature of the discharge shall at no time exceed the temperature of the intake water used for this discharge.
- C. The screen wash water shall consist of: (1) 3.2 MGD of Cape Cod Bay marine water and (2) 0.90 MGD of potable fresh water used as Station Fire Water. The marine water will be dechlorinated before injection. The Station Fire Water (0.90 MGD) shall be used only during emergency conditions when the screen operation is impeded by an accumulation of algae or other biological material. The Nuclear Regulatory Commission (NRC) must approve this use of the Station Fire Water as consistent with the overall station safety requirements.

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- d. All live fish, shellfish and other organisms collected or trapped on the intake acreens should be returned to their habitat, sufficiently distant from the intake structure to prevent reimpingement.
- e. The pH shall not vary more than 0.5 standard units from the intake pH.
- f. There shall be no discharge of floating solids, oil sheen, or visible foam in other than trace amounts.
- g. The flow rate and quantity of fire water used for this shall meet the Nuclear Regulatory Commission safety criteria.
- h. Samples taken in compliance with the monitoring requirements specified above shall be taken at some representative point prior to discharge into receiving waters.

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A. EFFILIENT LIMITATIONS AND MONITORING REQUIREMENTS ..

- 4a. During the period beginning Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall serial number(s) 008, Sea Foam Suppression Discharge effluent subject to the following conditions:
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics			Discharge Limitations		Monitoring Requirements		
	т			Avg. Monthly	Max. Daily	Measurement	Sample
						Frequency	
	Flow - MGD		*	0.73	0.73	Daily	Estimate

- b. The temperature of the discharge shall at no time exceed the temperature of the intake water used for this discharge.
- c. The Sea Form Suppression discharge shall consist of Station Fire Water (potable fresh water). The Fire Water (0.73 MSD) shall be used only during emergency conditions when the sea foam blanket near the intake structure could be blown by the wind into the transformer yard jeopardizing the electrical systems therein. The Nuclear Regulator Commission (NRC) must approve this use of the Station Fire Water as consistent with the overall station safety requirements.
- d. The pH shall not vary more than 0.5 standard units from the Fire Water System pH.,
- e. There shall be no discharge of floating solids, oil sheen, visible foam in other than trace amounts.
- f. The flow rate and quantity of fire water used for this shall meet the Nuclear Regulatory Commission safety criteria.
- g. Samples taken in compliance with the monitoring requirements specified above shall be taken at some representative point prior to discharge into the receiving waters.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 5. During the period beginning Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall(s) serial number(s) 010, Plant Service Cooling Water.
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations	Monitoring Requ	Monitoring Requirements	
	Avg. Monthly Max. Daily	Measurement Frequency	Sample Type	
Flow, MGD	19.4 -	Continuous*	Daily Avg.	
Total Residual Oxidants, mg/l	0.50 1.00	Continuous	Daily Avg. and Max.	

- * The flow rate shall be estimated from pump capacity curves and operational hours.
- b. Continuous chlorination of the Plant Service Water System may be used for macroinvertebrate control.
- c. Should the continuous TRO monitoring equipment become inoperative, manual grab samples taken once per day may be submitted in lieu of the continuous monitoring data.
- d. Samples taken in compliance with the monitoring requirements specified above shall be taken at the heat exchanger before this stream mixes with any other stream going to the discharge.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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- 6. During the period beginning Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall(s) serial number(s) 011, Makeup Water and Demineralizer Waste Discharge.
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	fluent Characteristic Discharge Limitations		Monitoring Requirements	
	Avg. Monthly Max. Daily	Measurement Frequency	Sample Type	
Flow, MGD	0.015 0.06	When in use	Daily Avg. and Max., Estimate	
Total Suspended Solids, mg/l	30. 100.	Batch	Grab	

b. The pH shall not be less than 6.1 standard units nor greater than 8.4 standard units.

c. Samples taken in compliance with the monitoring requirements specified above shall be taken at representative point prior to mixing any other stream.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 7. During the period Effective Date and lasting through Permit Expiration Date the permittee is authorized to discharge from outfall(s) serial numbers 004, 005, 006, and 007 yard drains, an effluent subject to the following conditions:
 - a. Such discharges shall be limited and monitored by the permittee as specified below:

	Effluent Characteristic		Discharge Limitations	
	Avg. Monthly	Max. Daily	Measurement	Sample
Flow - MGD				
Total Suspended	Solids, mg/l 30	100	2/year	Grab
Oil and Grease,	mg/1	15.0	2/year	Grab

b. The discharge shall consist only of stormwater runoff.

c. The discharge shall not cause visible discoloration of or sheen upon the receiving waters.

d. There shall be no discharge of floating solids or visible foam in other than trace amounts.

e. The discharge shall not cause violation of the water quality standards of the receiving waters.

- f. The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units or not more than 0.2 standard units outside the naturally occurring range.
- 9. The discharge shall be monitored twice per year (once during the month of April and once during the month September). A grab sample shall be taken within the first hour of the start of a significant storm event. The data shall be reported by the 21st day of the month following the completed report period.
- h. Samples taken in compliance with the monitoring requirements specified above shall be taken at some representative point prior to discharge to the receiving waters.
- i. Yard Drain #005 may also accommodate demineralizer system and hydrogen injection system effluents within the permit limits except for a higher pH from the hydrogen system. The higher pH of the hydrogen system scrubber discharge of less than 10 gpm will be rapidly reduced to ambient marine water pH by the circulating cooling water discharge.

(add neutralizing sung waste + heating system effluent)

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8. Biological Monitoring

- a. Any incidence of fish mortality associated with the thermal plume or of unusual number of fish impinged on the intake traveling screens shall be reported to EPA and State immediately by telephone report as required in Part II of this permit. A written confirmation report is to be provided within five (5) days. These reports should include the following:
 - (1) The kinds, sizes, and approximate number of fish involved in the incident.
 - (2) The time and date of the occurence.
 - (3) The operating mode of the plant.
 - (4) The opinion of the company as to the reason the incident occured.
 - (5) The remedial action the company will take to prevent a reoccurrence of the incident.
- b. The permittee shall conduct such studies and monitoring as are determined by the EPA and the State to be necessary to evaluate the effect of the operation of the Pilgrim Station, on the balanced, indigenous community of shellfish, fish, and wildlife in and on Cape Cod Bay.
- c. The 1990 Environmental Monitoring Programs and plans, previously approved, becomes an integral element of this permit (Attachment A).
- d. No later than December 31st of each year, the permittee shall submit to EPA and the State for approval any revisions of the existing biological monitoring program (Par. c above) which may be warrented by the availability of new information. Upon approval by the Regional Administrator and the Director, the revised program submitted in accordance with this paragraph shall be incorporated as a part of this permit. The permittee shall carry out the monitoring program under the guidance of the Pilgrim Technical Advisory Committee.
- e. The permittee shall submit biological reports on semi-annual basis including an annual summary report.
- f. All live fish, shellfish, and other aquatic organisms collected or trapped on the intake screens shall be returned to water of ambient temperature sufficiently distant from the intake structures to prevent reimpingement.

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All solid materials except leaves and twigs removed from the screens shall be disposed of on land. All sluice waters employed in backwashing the intake screens shall be dechlorinated before use.

C. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked no later than the 21th day of the month following the completed reporting period. The first report is due on the 21st day of the month following the effective date of this permit.

Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

Environmental Protection Agency Permit Processing Section Post Office Box 8127 Boston, Massachusetts 02114

The State agency is:

Massachusetts Department of Environmental Protection Massachusetts Division of Water Pollution Control Southeastern Regional Office Lakevile Hospital Lakeville, Massachusetts 02358

Signed copies of all other notifications and reports required by this permit shall be submitted to the State at:

Massachusetts Department of Environmental Protection Massachusetts Division of Water Pollution Control Regulatory Branch - 7th Floor One Winter Street Boston, Massachusetts 02108

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D. STATE PERMIT CONDITIONS

 This Discharge Permit is issued jointly by the U.S. Environmental Protection Agency and the Division of Water Pollution Control under Federal and State law, respectively. As such, all the terms and conditions of this Permit are hereby incorporated into and constitute a discharge permit issued by the Director of the Massachusetts Division of Water Pollution Control pursuant to M.G.L. Chap. 21, §43.

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2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

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Attachment A

Attachment to BECo Letter No. 90-068

Dated: December 21, 1990

Permit: MA0003557

MARINE ECOLOGY MONITORING RELATED TO OPERATION OF PILGRIM STATION UNIT 1 NPDES PERMIT PROGRAMS

In accordance with NPDES Permit requirements for Pilgrim Station Permit No. MA0003557 (Federal) and No. 359 (State), the following modified programs are presented for 1991. The 1978 through 1990 programs were submitted to the Regional Administrator, U.S. Environmental Protection Agency (EPA) and Director, Mass. Division of Water Pollution Control (MDWPC), in December 1977 through December 1989, respectively.

I. ENVIRONMENTAL MONITORING

The Environmental Monitoring Program represents a continuation of previous monitoring. Pre-operational studies for Pilgrim Unit I commenced in 1969, almost four years before initial operation in December 1972. In accordance with environmental monitoring and reporting requirements of the Unit 1 Operating License, DPR-35, issued by the U.S. Atomic Energy Commission (now the Nuclear Regulatory Commission) Boston Edison carried out a post-operational Marine Ecology Program. This program was designed to investigate the Cape Cod Bay ecosystem, with emphasis on the Rocky Point area, in order to determine whether the operation of Pilgrim Station resulted in measurable effects on the marine ecology and evaluate the significance of any such effects. The Marine Ecology Program for Unit 1 continued for five years from initial full power operation (that is, through December 1997) and was replaced by this NPDES Permit Program (with NRC concurrence). Amendment #67 (1983) to the PNPS Technical Specifications deleted Appendix B non-radiological water quality requirements since the NRC believed they were incorporated in the NPDES Permit. The post-operational monitoring for Pilgrim Unit 1 and the collected data are incorporated and analyzed in the Marine Ecology Semi-Annual Reports (#1-36), Marine Ecology Final Report (1978), and the Section 316 Demonstration Document (1975) and Supplement (1977) pursuant to the Federal Water Pollution Control Act Amendments of 1972."

The NPDES Program includes the following elements:

A. <u>Pilgrim Administrative - Technical Committee</u>

The Pilgrim Administrative - Technical Committee (PATC) is an advisory committee that was established to ensure the Pilgrim marine studies have the benefit of qualified, outside scientific and technical advice, and are responsive to regulatory agency concerns. The PATC recommends improvement to ongoing monitoring based on the latest results with the approval of the U.S. EPA and Mass. Div. of Water Pollution Control. It has held 74 meetings The present membership is as follows:

Agency

National Marine Fisheries Services - (2 members)

Mass. Division of Water Pollution Control - (3 members)

U. S. Environmental Protection Agency - (2 members)

Mass. Division of Marine Fisheries - (2 members)

Mass. Office of Coastal Zone Management - (1 member)

University of Massachusetts (2 members)

Boston Edison Company (1 member)

Each meeting was chaired by a representative of the Mass. Div. of Water Pollution Control in 1989. Minutes of PATC meetings appear in the semi-annual Pilgrim Station marine ecology reports.

B. <u>Marine Fisheries Monitoring</u> (Mass. Division of Marine Fisheries)

The Division of Marine Fisheries (DMF), an agency of the Commonwealth of Massachusetts, conducts field monitoring (modified in 1981) pertinent to Pilgrim Station. The monitoring efforts listed below will be continued in 1990.

<u>Fish</u>

The DMF monitors the occurrence and distribution of fish around Rocky Point and at sites in the area of discharge temperature increase. Groundfish will be collected using a 32-foot Shrimp trawl (1/2 inch mesh liner) bi-weekly from April-December and monthly from January-March. Four stations will be sampled (including replicates), at 2 reference and 2 surveiliance locations which include the PNPS intake embayment and discharge thermal effluent. Figure 1 shows sampling station locations.

A finfish observational dive survey (Figure 1) will continue in 1990 for the Pilgrim Station thermal plume area. This monitoring will involve bi-weekly diving from May through November to document fish behavior and condition at six stations. During mid-August to mid-September, weekly diving will be done to document potential thermal plume-related mortalities.

In June-November 1990, a 150-foot and 20-foot beach seine (3/16 inch mesh bag) survey (Figure 2) will be performed bi-weekly at four stations, including one in the Pilgrim Station intake embayment. This monitoring will record fishes which are most susceptible to large impingement mortalities that have occurred in previous years. An initial cunner tagging effort will be commenced to determine the feasibility of documenting this resident species relation to the thermal plume.

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Lobster

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An experimental lobster pot study, initiated in 1986, will be continued during June-September in reference and surveillance areas to better define Pilgrim Station's thermal influence on lobster catch rate (Figure 3).

The DMF has collected lobster catch statistics bi-weekly through each fishing season (May-November) by sampling commercial lobstermen's pot hauls. This effort will continue with one lobsterman as a measure of the Pilgrim Station effect on the local lobster population (Figure 4 shows the sampling grid).

Gas Saturation

In 1990, saturated gas analyses will be conducted only during periods of potential discharge-related mortalities (as occurred in August 1985). A Weiss saturometer will be used in situ to measure total partial pressure of dissolved gases, and percent saturation of total gas, nitrogen, and oxygen.

C. Impingement Monitoring (Marine Research, Inc./BECo)

The main objective of the impingement study is to calculate impingement rates of marine organisms by gathering and analyzing data on numbers and species carried onto the four travelling water screens at Pilgrim Station. In 1990 the weekly collection time will be twenty-four hours (three 8-hour periods). Supplemental fish survival data will also be recorded. BECo will analyze the data and prepare the reports.

D. <u>Benthic monitoring</u>

The benthic flora and fauna will be monitored at three sampling stations at depths of approximately 10 feet (MLW) (Figure 1). The dominant flora and fauna in each plot are recorded, and quantitative samples are collected from rock surfaces. Sampling will continue two times a year (March and September) to determine power plant-related effects.

In addition, transect monitoring to map the extent of stunted and denuded areas immediately off the discharge canal will be continued 4 times a year (March, June, September and December) in 1990.

E. Entrainment Monitoring (Marine Research, Inc.)

Entrainment monitoring in 1989 emphasized consideration of ichthyoplankton, as it will in 1990.

The 1990 entrainment studies will consist of routine monitoring of the Pilgrim discharge. This monitoring will be on a weekly basis during the period March-September and bi-weekly during the periods January-February and October-December. Samples will be collected in triplicate. If exceptionally high egg or larvae concentrations are found in the discharge when compared with previous years, steps will be taken to implement contingency ichthyoplankton sampling plans to assess the reason for the high concentrations. The first plan will consist of additional tows and sample analysis from the discharge canal. If ichthyoplankton numbers remain exceptionally high, the second plan consisting of single tows at each of 13 Bay stations off the plant will be initiated, and the samples analyzed immediately to determine the cause for the high densities (Figure 5). MRI will analyze the data and prepare the reports.

F. <u>Reporting of Environmental Monitoring</u>

Semi-annual and annual reports with results of the above (Items A-E) will be submitted to the EPA and MDWPC on October 31, 1990 and April 30, 1991 covering the periods January-June and January-December 1990, respectively.

II. THERMAL DISCHARGE FISH SURVEILLANCE

The Thermal Discharge Fish Surveillance Program for Pilgrim Station has the following primary parts:

A. <u>Overfights</u>

Periodic aerial overflights of western Cape Cod Bay and the Pilgrim vicinity will be conducted to alert Boston Edison to the presence of large schools of fish in the area. These overflights will be conducted weekly from March-November 1990 and results summarized by BECo in each annual monitoring report.

B. Observation of the Discharge Canal

Boston Edison personnel will make frequent visual observations of the Pilgrim discharge canal during periods of fish migration.

C. <u>Dive Surveys</u>

Dive inspections of the discharge canal and fish barrier net will determine fish presense and condition, and barrier net performance. BECo will report dive survey findings in each annual monitoring report. Also, fish sampling and diver observation in the plume area will be conducted bi-weekly from May through November by Massachusetts Division of Marine Fisheries personnel as part of the Environmental Monitoring Program.

The dive and observation elements of the Surveillance Program monitor compliance with the NPDES Permit barrier net condition, by providing a check on the adequacy of the net in preventing fish passage into the discharge canal. If these elements indicate that the barrier net is not functioning adequately and the Permit's 115% surface nitrogen limitation is triggered by the EPA, the overflights, as well as the canal observations and dive surveys, will indicate when fish susceptible to gas bubble disease mortality are sufficiently near Pilgrim Station to warrant action to reduce surface nitrogen saturation level to less than 115%. Boston Edison will notify the EPA Regional Administrator and Massachusetts DWPC Director of the presence of large schools of fish within 1/2 mile of the discharge canal concurrent with water quality conditions potentially harmful to the fish.

III. DISSOLVED NITROGEN SATURATION REDUCTION

The plan for reducing dissolved nitrogen surface saturation levels to less than 115% in the discharge canal will involve a power reduction or outage should a school of fish susceptible to gas bubble disease mortality be in the immediate vicinity of Pilgrim Station. The procedure for determining the need, feasibility and request for a power reduction or outage is as follows:

- 1. Responsible regulatory/agency personnel familiar with fishery statistics (e.g. Mass. Division of Marine Fisheries) will estimate the magnitude of the fish school and, based on measured water quality and other pertinent environmental data, make a determination as to the likelihood and effect of a gas bubble disease mortality. They will also determine the potential necessity for a nitrogen saturation reduction, and notify Boston Edison of this initial judgment.
- 2. Boston Edison will notify the Rhode Island, Eastern Massachusetts, and Vermont Energy Control (REMVEC) of the possibility of a power reduction and obtain projections through at least the upcoming weekend. Boston Edison will transmit load information to the agencies/persons taking the actions identified in No. 1 above.
- 3. On the basis of this information, agency personnel will formulate specific recommendations to the EPA Regional Administrator and/or the MDWPC Director on the timing and duration of a power reduction that is, in their judgment, appropriate and in the overall public interest.
- 4. Responsible regulatory personnel will request a power reduction through a telephone call to the Boston Edison, Pilgrim Nuclear Power Station Director.
- 5. Boston Edison personnel will record results of periodic surveillance of the condition and location of the fish prior to and subsequent to any plant changes.

RDA/1503



Figure 1. Location of Beach Seine and Gill Net Sampling Stations for Marine Fisheries Studies, and Benthic Studies Sampling Stations



Figure 2. Location of Shrimp Trawl and Dive Sampling Stations for Marine Fisheries Studies





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Figure 5. Location of Entrainment Contingency Plan Sampling Stations, 5.

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SECTION A. GENERAL REQUIREMENTS

1. Duty to Comply

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

- a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405 (d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to interporate the requirement.
- b. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.
- c. Except as provided in permits conditions on "Bypassing" (Part II.B.4) and "Upsets" (Part II.B.5) below, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

2. <u>Permit Actions</u>

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

3. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and

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reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

Reopener Clause

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

Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the CWA.

6. <u>Property Rights</u>

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. <u>Severability</u>

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The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

8. <u>Confidentiality of Information</u>

- a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, <u>EPA may make the information</u> available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).
 - Claims of confidentiality for the following information will be denied:
 - (i) The name and address of any permit applicant or permittee;

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(11) Permit applications and permits; and

(iii) NPDES effluent data.

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

9. Duty to Reapply

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

10. Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee may submit a request to the Regional Administrator for an evidentiary hearing under Subpart E, or a formal hearing under Subpart F, of 40 CFR Part 124, to reconsider or contest that decision. The request for a hearing must conform to the requirements of 40 CFR §124.74.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.

12. Other Laws

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

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this

permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the the operation is necessary to achieve compliance with the conditions of the permit.

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

3. Duty to Mitigate

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

4. Bypass

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"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

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

b. Prohibition of bypass.

(<u>1</u>) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless all the following conditions occur:

> (A) Bypass was unavoidable to prevent loss of life. personal injury, or severe property damage:

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, :: maintenance during normal periods of equipment downtime. This condition is not satisfied .: adequate backup equipment should have been adequate backup equipment of reasonable

engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- (C) The permittee submitted notices as required under Paragraph B.4.c of this section.
- (ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Paragraph B.4.b.(i) of this section.
 - (iii) <u>Bypass not exceeding limitations</u>. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraph B.4.c of this section.

c. <u>Notice</u>.

- (i) <u>Anticipated bypass</u>. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (ii) <u>Unanticipated bypass</u>. The permittee shall submit notice of an unanticipated bypass as required in Paragraphs D.1.a and D.1.e (24-hour notice).

5. Upset

- a. <u>Definition</u>. "Upset" means an exceptional incident in which there is unintentional and temporary non-compliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. <u>Effect of an upset</u>. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph B.5.c of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

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- c. <u>Conditions necessary for a demonstration of upset</u>. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (ii) The permitted facility was at the time being properly operated;
 - (iii) The permittee submitted notice of the upset as required in Paragraphs D.1.a and D.1.e of this section (24-hour notice); and
 - (iv) The permittee complied with any remedial measures required under (d) above.

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

Removed Substances

6.

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., and regulations promulgated thereunder.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

"In accordance with the Schedule of Compliance contained in Part I of this permit, provide an alternative power source sufficient to operate the wastewater control facilities";

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I of this permit:

"Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities".

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SECTION C. MONITORING AND RECORDS

1. Monitoring and Records

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- a. Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.
- b. The permittee shall retain for a period of at least 5 years (or longer as required by 40 CFR Part 503) all records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities.

The permittee shall retain wastewater related records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

- Records of monitoring information shall include:
- (i) The date, exact place, and time of sampling or measurements;
- (ii) The individual(s) who performed the sampling or measurements;
- (iii) The date(s) analyses were performed;
- . (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- d. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures are specified in this permit.
- e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine if not more than \$25,000 per violation or by imprisonment for not more than 6 months per violation or by both.

Monitoring results must be reported on a Discharge . **f.** Monitoring Report (DMR).

g. If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under CFR Part 136 and specified in 40 CFR Part 503 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

2. Inspection and Entry

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The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

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

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

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

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

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SECTION D. REPORTING REQUIREMENTS

1. <u>Reporting Requirements</u>

a. <u>Planned changes.</u> The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new course in 40 CFR §122.29(b); or

(ii) the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to the effluent limitations in the permit, not to the notification requirements under 40 CFR §122.42(a)(1).

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(iii) the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. <u>Anticipated noncompliance</u>. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

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c. <u>Transfers</u>. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the CWA.

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

- Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided as specified by the Director for reporting results of monitoring of sludge use or disposal practices.
- (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting forms specified by the Director.

<u>Twenty-four hour reporting</u>. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances or the next working day.

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

taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported within 2; hours (24-hour reporting) or the next working day:

- (i) Any unanticipated "bypass" which causes a violation of any effluent limitation in the permit; or
- (ii) Any "upset" which causes a violation of any effluent limitation in the permit; or
- (iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit. ne en la secono de la secono de

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours or the next working day.

- f. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Subparagraphs (a), (b), and (e), of this section, or not reported in a compliance schedule report in the permit conditions, at the time monitoring reports are submitted. The reports shall contain the information required in Subparagraph (a) and (e) of this section.
 - Other information. Where the permittee becomes aware g. that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

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2. <u>Change in Discharge</u>

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All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants anot previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically the the parmit constitutes a violation. authorized by the permit constitutes a violation.

3. Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with 40 CFR §122.22. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

Availability of Reports

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

SECTION E. OTHER CONDITIONS.

1. DEFINITIONS

4.

a. For purposes of this permit, the following definitions shall apply.

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

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

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

<u>Average</u> - The arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms, the average shall be the geometric mean.

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

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

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

<u>Best Professional Judgement (BPJ)</u> means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT) or other appropriate standard based on an evaluation of the available technology to achieve a particular pollutant reduction.

<u>Class 1 Sludge Management Facility</u> means any POTW identified under 40 CFR §403.8(a) as being required to have an approved pretreatment program fincluding such POTWs located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10(e)] and any other treatment works treating domestic sewage classified as a "Class I Sludge Management Facility" by the Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sludge use or disposal practices to adversely affect public health and the environment.

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

<u>CWA</u> means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-503, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117; 33 U.S.C. §§1251 et seq.

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

Director means the person authorized to sign NPDES permits by EPA and/or the State.

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

Discharge of a pollutant means:

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- (a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or
- :(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

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

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

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

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

EPA means the United States "Environmental Protection Agency."

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

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

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

Industrial User means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means an addition or disruption of the POTW, its treatment processes or operations, or its sludge processes, use or disposal which is cause of or significantly contributes to either a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or to the prevention of sewage sludge use or disposal by the POTW in accordance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II more commonly referred to as the Resource Conservation and Recovery Act (RCRA) and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, and the Toxic Substance Control Act. An Industrial User significantly contributes to such a permit violation or prevention of sludge use or disposal in accordance with above-cited authorities whenever such User:

> (a) Discharges a daily pollutant loading in excess of that allowed by contract with the POTW =: by Federal, State, or local law;

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(b) Discharges wastewater which substantially differs in nature or constituents from the User's average discharge; or

(c) Knows or has reason to know that its discharted alone or in conjunction with discharges from other sources, would result in a POTW permit violation or prevent sewage sludge use disposal in accordance with the above-cites

authorities as they apply to the POTW's selected method of sludge management.

<u>Maximum daily discharge limitation</u> means the highest allowable "daily discharge."

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

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

<u>New discharger</u> means any building, structure, facility, - or installation:

- (a) From which there is or may be a "discharge of pollutants";
- (b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;
- (c) Which is not a "new source"; and
- (d) Which has never received a finally effective NPDES permit for discharges at that "site".

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

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

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

- (a) After promulgation of standards of performance under Section 306 of CWA which are applicable un marine de la companya de la **torsuch** Antenada estado esta a companya de la companya de la
- (b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

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

Pass through means "the discharge of pollutants through the POTW" into navigable waters in quantities or concentrations which are a cause of or significantly contribute to a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation). An industrial user significantly contributes to such permit violation significantly contributes to such permit violation where it:

- (a) Discharges a daily pollutant loading in excess of that allowed by contract with the POTW or by Federal, State, or local law:
- алар (**b**), (b) Discharges wastewater which substantially differs in nature and constituents from the user's average discharge:
 - (c) Knows or has reason to know that its discharge alone or in conjunction with discharges from other sources would result in a permit
- other violation; or (d) Knows or has reason to know that the POTW is, for any reason, violating its final effluent its permit and that such its permit and that such limitations in its permit and that such Industrial User's Discharge either alone or in conjunction with Discharges from other sources, increases the magnitude or duration of the POTW's violations. POTW's violations.

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

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

<u>Point source</u> means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

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

(a) Sewage from vessels; or

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

Primary industry category means any industry category listed in the NRDC settlement agreement (<u>Natura</u>) <u>Resources Defense Council et al. v. Train</u>, 8 E.R.C. 2127 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979) also listed in Appendix A of 40 CFR Part 122.

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

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

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

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

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

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

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

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

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

Sludge Management Facility. Class I, see the definition under "Class I Sludge Management Facility" above.

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

<u>Sludge Technical Standards (40 CFR Part 503)</u>. All references to 40 CFR Part 503 (the technical regulations references to 40 CFR Part 503 (the technical regulations required by Section 405(d) of the CWA in Parts 122, 123. and 124) refer to the final regulation. Promulgation of the final regulation is expected in 1991. Until the is following promulgation of this regulation, sludge requirements in the NPDES Permits are based on EPA's "Sewage Sludge Interim Permitting Strategy" dated September 1989 and EPA's "Guidance for Writing Case-by-Case Permit Requirements for Municipal Sewage Sludge" dated December 1989.

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

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

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

Waters of the United States means:

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- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate "wetlands."
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) From which ish or shellfish are or could be taken and sold in interstate or foreign commerce; or

- (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in Paragraphs
 (a) through (d) of this definition;
- (f) The territorial sea; and

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

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

2. The following abbreviations, when used, are defined below.

cu. M/day or M ³ /day	cubic meters per day		
mg/1	milligrams per liter		
ug/l	micrograms per liter		
lbs/day	pounds per day		
kg/day	kilograms per day		
Temp. C	temperature in degree		

temperature in degrees Centigrade

temperature in degrees Fahrenheit

turbidity measured by the Nephelometric Method (NTU)

total nonfilterable residue or total suspended solids

dissolved oxygen

five-day biochemical oxygen demand unless otherwise specified

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	CBOD •	carbonaceous BOD	
na La casa La casa La casa	TKN - Constant of the second sec	total Kjeldahl nitrogen as nitrogen	(
· · · ·	Total N	total nitrogen	
	NH3-N	ammonia nitrogen as nitrogen	
	Total P	total phosphorus	
		chemical oxygen demand	
··	TOC	total organic carbon	
	Surfactant	surface-active agent	
	Hq	a measure of the hydrogen ion concentration	
	PCB	polychlorinated biphenyl	
	CFS	cubic feet per second	
	MGD	million gallons per day	
	Oil & Grease	Freon extractable material	(
	Total Coliform	total coliform bacteria	
	Fecal Coliform	total fecal coliform bacteria	
	ml/1	milliliter(s) per liter	
	NO3-N	nitrate nitrogen as nitrogen	
	NO ₂ -N	nitrite nitrogen as nitrogen	
	NO3-NO2	combined nitrate and nitrite nitrogen as nitrogen	
90 - 14	Cla	total residual chlorine	
	ZID	zone of initial dilution	
×	Cont. (Continuous)	Continuous recording of the the parameter being monitored, i.e.: flow, temperature, pH etc.	
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