

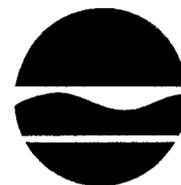
PMD

New York State Department of Environmental Conservation

Division of Environmental Permits, Region One

Building 40 - SUNY, Stony Brook, New York 11790-2356

Phone: (631) 444-0365 FAX: (631) 444-0360



February 8, 2002

Michael Holland
Department of Energy
Brookhaven National Laboratory
PO Box 5000
Upton, NY 11973

RE: NYSDEC Permit #1-4722-00032/00072
SPDES Facility #NY-0005835

Dear Permittee:

In conformance with the requirements of the State Uniform Procedures Act (Article 70, ECL) and its implementing regulations (6NYCRR, Part 621) we are enclosing your **modified** SPDES permit. Please carefully read all permit conditions and the schedule contained in the permit carefully to insure compliance during the term of the permit.

This permit must be kept available on the premises of the discharging facility at all times.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark C Carrara', written over a horizontal line.

Mark C Carrara
Permit Administrator

cc: SPDES Unit, DOW Reg1
R. Hannaford, BWP Albany
File

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT
Special Conditions (Part I)



Rev 6/99

Industrial Code:	<u>8731</u>	SPDES Number:	<u>NY- 000 5835</u>
Discharge Class (CL):	<u>03</u>	DEC Number:	<u>1-4722-00032/00072-0</u>
Toxic Class (TX):	<u>T</u>	Effective Date (EDP):	<u>03/01/00</u>
Major Drainage Basin:	<u>17</u>	Expiration Date (ExPD):	<u>03/01/05</u>
Sub Drainage Basin:	<u>01</u>	Modification Dates:	<u>03/24/01 2/1/2002</u>
Water Index Number:	<u>FB3-112</u>	Attachment(s):	<u>General Conditions - Part II (11/90)</u>
Compact Area:	<u></u>		

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name: United States Department of Energy Attention: George Malosh, Brkhvn Grp. Mgr.
Street: Brookhaven Area Office
City: Upton State: NY Zip Code: 11973
is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: Brookhaven National Laboratory
Location (C,T,V): Brookhaven (T) County: Suffolk
Facility Address: 53 Bell Avenue
City: Upton State: NY Zip Code: 11973
NYTM -E: _____ NYTM - N: _____
From Outfall No: 001 at Latitude: 40 ° 52 ' 39 " & Longitude: 72 ° 53 ' 01 "
into receiving waters known as: Peconic River Class: C
and; (list other Outfalls, Receiving Waters & Water Classifications)
Outfall 001: Approximately 15% of the STP discharge is permitted to be discharged to groundwater via exfiltration from the sand filter beds. Groundwater - Class GA
Outfalls 002, 005 - 011: Groundwater - Class GA
Suffolk County Tax Map Numbers:
District: 0200 Section: 505.0
Block: 1.0 Lot: 1.0

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in Special Conditions (Part I) and General Conditions (Part II) of this permit.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: U. S. Department of Energy - Brookhaven National Laboratory
Street: Brookhaven Area Office
City: Upton State: NY Zip Code: 11973
Responsible Official or Agent: Mr. George Malosh, Brookhaven Group Manager Phone: (631) 282-3424

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

R. Schneck / W. Spitz
R. Hannaford
A. Santino, SCDHS
USEPA, Region II

Permit Administrator:	Mark Cararra, Deputy RPA	
Address:	Building 40 - SUNY Stony Brook, New York 11790-2356	
Signature:		Date: <u>2/1/2002</u>

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning Effective Date of Modification (EDM)
and lasting until March 01, 2005

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

<u>Outfall Number & Effluent Parameter</u>	<u>Discharge Limitations</u>		<u>Units</u>	<u>Minimum Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Outfall 001: Process Sanitary Effluent & Stormwater Runoff discharging to Peconic River - Class C</u>					
Flow	Monitor	2.3	MGD	Continuous	Recorded
Copper, Total	NA	0.15	mg/l	Monthly	24 Hr. Comp.
Iron, Total	NA	0.37	mg/l	Monthly	24 Hr. Comp.
Lead, Total	NA	0.019	mg/l	Monthly	24 Hr. Comp.
Mercury, Total	NA	0.0008	mg/l	Monthly	24 Hr. Comp.
Nickel, Total	NA	0.11	mg/l	Monthly	24 Hr. Comp.
Silver, Total	NA	0.015	mg/l	Monthly	24 Hr. Comp.
Zinc, Total	NA	0.1	mg/l	Monthly	24 Hr. Comp.
BOD ₅	10	20	mg/l	Monthly	24 Hr. Comp.
Total Suspended Solids	10	20	mg/l	Monthly	24 Hr. Comp.
Ammonia (as N)	NA	2	mg/l	Monthly	24 Hr. Comp.
Total Nitrogen	NA	10	mg/l	Monthly	24 Hr. Comp.
Total Phosphorus	NA	Monitor	mg/l	Monthly	24 Hr. Comp.
Settleable Solids	NA	0.1	ml/l	Daily	Grab
Temperature	NA	90	°F	Daily	Grab
pH (range)	NA	5.8 - 9.0	SU	Daily	Grab
1,1,1-Trichloroethane	NA	5	µg/l	Twice/Month	Grab
Methylene Chloride	NA	5	µg/l	Twice/Month	Grab
Toluene	NA	5	µg/l	Twice/Month	Grab
2-Butanone	NA	50	µg/l	Twice/Month	Grab
Cyanide	NA	100	µg/l	Twice/Month	Grab
Fecal Coliform	200	400	MPN/100ml	Monthly	Grab
PCBs	NA	Monitor	µg/l	Quarterly	Grab

ADDITIONAL REQUIREMENT: The effluent value for BOD₅ and TSS shall be not exceed 15% of the influent value.

NOTES:

Approximately 15% of the STP discharge is permitted to be discharge to groundwater via exfiltration from the sand filter beds.

Quantities or concentrations of radioactivity in the effluent of this and all other outfalls are subject to the requirements of the United States Department of Energy (USOE) Order 5400.5.

Samples shall be analyzed for PCBs using EPA Method 608 with an MDL goal of 0.065 ppb

Outfall 002: AGS Non-Contact Cooling Water, Precipitation Drainage from Secondary Containment, Floor Drains and Stormwater Runoff and the STAR (Bldg. 1006) detector's Cooling Tower Blowdown and the PHENIX (Bldg. 1008) Detector's Cooling Tower Blowdown PHOSBOS (Bldg 1010) Cooling Tower Blowdown discharging to Groundwater - Class GA (Station HN)

Flow	Monitor	NA	MGD	Monthly	Recorded
pH (range)	NA	Monitor - 9.0	SU	Monthly	Grab
Oil & Grease	NA	15	mg/l	Monthly	Grab
1,1,1-Trichloroethane	NA	5	µg/l	Quarterly	Grab
Chloroform	NA	7	µg/l	Quarterly	Grab
Bromodichloromethane	NA	50	µg/l	Quarterly	Grab
HEDP	NA	0.5	mg/l	Quarterly	Grab
Tolytriazole	NA	0.2	mg/l	Quarterly	Grab
Aluminum, Total	NA	2.0	mg/l	Quarterly	Grab

Note: Sampling for this outfall shall be conducted at a location downstream of where the existing discharge mixes with the cooling tower blowdown from the STAR detector.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning Effective Date of Modification (EDM)

and lasting until March 01, 2005

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

<u>Outfall Number & Effluent Parameter</u>	<u>Discharge Limitations</u>		<u>Units</u>	<u>Minimum Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Outfall 02B: RF (Bldg. 1004) And BRAHMS (Bldg 1002) Cooling Tower Blowdowns discharging to Groundwater - Class GA</u>					
Flow	NA	Monitor	MGD	Monthly	Recorded
pH (range)	NA	Monitor - 9.0	SU	Monthly	Grab
Oil & Grease	NA	15	mg/l	Monthly	Grab
HEDP	NA	0.5	mg/l	Quarterly	Grab
Tolytriazole	NA	0.2	mg/l	Quarterly	Grab

Note: The discharge from this source may be directed to the surrounding low lying area inside the roadway that is inside the RHIC ring. Once the stormwater collection system is extended to building 1010 and a new recharge basin is constructed, this discharge should be directed to the new basin..

Outfall 003: HFBR and AGS Non-Contact Cooling Water and Stormwater discharging to Groundwater - Class GA

No Monitoring Required

Outfall 005: NSLS Cooling Tower Blowdown and Stormwater Runoff from Parking Area Drains in Warehouse Area (Station HS) discharging to Groundwater - Class GA

Flow	Monitor	NA		MGD	Monthly	Recorded
pH (range)	NA	Monitor - 8.5	SU	Monthly	Grab	
Oil & Grease	NA	15	mg/l	Monthly	Grab	
HEDP	NA	0.5	mg/l	Quarterly	Grab	
Tolytriazole	NA	0.2	mg/l	Quarterly	Grab	
Copper, Total	NA	1.0	mg/l	Quarterly	Grab	

Outfall 006A: LINAC NCCW, Floor Drains and Stormwater (Station HT1- southwest side of basin) discharging to Groundwater - Class GA

Flow	Monitor	NA		MGD	Monthly	Recorded
pH (range)	NA	Monitor - 9.0	SU	Monthly	Grab	
Oil & Grease	NA	15	mg/l	Monthly	Grab	
HEDP	NA	0.5	mg/l	Quarterly	Grab	
Tolytriazole	NA	0.2	mg/l	Quarterly	Grab	

Outfall 006B: Cooling Towers from Building 919, Floor Drains and Stormwater Runoff (Station HT2) discharging to Groundwater - Class GA

Flow	Monitor	NA		MGD	Monthly	Recorded
pH (range)	NA	Monitor - 9.0	SU	Monthly	Grab	
Oil & Grease	NA	15	mg/l	Monthly	Grab	
HEDP	NA	0.5	mg/l	Quarterly	Grab	
Tolytriazole	NA	0.2	mg/l	Quarterly	Grab	

Outfall 007: Water Treatment Plant Backwash (Station HX) discharging to Groundwater - Class GA

Flow	NA	Monitor	GPD	Monthly	Instantaneous
pH (range)	NA	Monitor - 9.0	SU	Monthly	Grab

91-20-2a (1/89)

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning Effective Date of Modification (EDM)

and lasting until March 01, 2005

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
Outfall 008: Stormwater Runoff from the Warehouse Area on South Railroad St. (Station HW) discharging to Groundwater - Class - GA					
Flow	NA	Monitor	GPD	Monthly	Instantaneous
pH (range)	NA	Monitor - 8.5	SU	Monthly ^{**}	Grab
1,1,1-Trichloroethane	NA	5	µg/l	Monthly ^{**}	Grab
1,1-Dichloroethene	NA	5	µg/l	Monthly ^{**}	Grab
Oil and Grease	NA	15	mg/l	Monthly ^{**}	Grab
Aluminum, Total	NA	2.0	mg/l	Quarterly ^{**}	Grab

^{**} To be sampled during a storm event.

Outfall 009: Miscellaneous subsurface Sanitary and NCCW Discharges

No Monitoring Required.

Outfall 010: Stormwater Runoff from the Central Steam Facility (Station H) discharging to Groundwater - Class GA

Flow	NA	Monitor	GPD	Monthly	Instantaneous
pH (range)	NA	Monitor - 8.5	SU	Monthly ^{**}	Grab
Oil and Grease	NA	15	mg/l	Monthly ^{**}	Grab
Aluminum, Total	NA	2.0	mg/l	Quarterly ^{**}	Grab
Copper, Total	NA	1.0	mg/l	Quarterly ^{**}	Grab
Lead, Total	NA	.05	mg/l	Quarterly ^{**}	Grab
Vanadium, Total	NA	Monitor	mg/l	Quarterly ^{**}	Grab

^{**} To be sampled during a storm event

Outfall 011: Stormwater Runoff from the Main Gate HWMF discharging to Groundwater - Class GA

No Monitoring Required.

Outfall 012: Stormwater Runoff, NCCW from Building 902 discharging to Groundwater - Class GA

No Monitoring Required.

NOTE: The effluent limitations contained in this permit for HEDP, DBNPA and Tolytriazole were determined with the understanding that the following water treatment chemical additives are being used on site:

Outfall 002: Drew 261T, 739, 187 and Sodium Hypochloride.

Outfall 005: Drew 261T, 250, 744, 739 and 187.

Outfall 006: Drew 261T, 739, 187 and Sodium Hypochlorite.

To use any other water treatment chemical additives, a request must be submitted to the Department and approval must be granted prior to use.

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ADDITIONAL REQUIREMENTS FOR ALL NON-SANITARY DISCHARGES TO THE SEWER COLLECTION SYSTEM

The following is a list of process discharges discharging to the sanitary collection system that must be monitored to determine if one or more of the flows are causing any adverse impact on the Sewage Treatment Plant. Sampling and analyses for these flows may be conducted in house and are not required to be analyzed by a State certified laboratory.

Outfall Number & Effluent Parameter	Discharge Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type

Discharge 001A: Acid/Caustic cleaning waters and Rinse Waters from the Plating and Etching processes for Printed Circuit Boards in Building 535B discharging to the Sewer Collection System

Flow	Monitor	NA	GPD	Quarterly	Recorded
pH (range)	NA	Monitor	SU	Quarterly	Grab
Bis-(2-ethylhexyl) Phthalate	NA	Monitor	µg/l	Quarterly	Grab
Di-n-Butylphthalate	NA	Monitor	µg/l	Quarterly	Grab

Discharge 001B: Rinse Waters from the Centralized Degreasing Facility Located in Building 498 discharging to the Sewer Collection System

Flow	Monitor	NA	GPD	Quarterly	Recorded
pH (range)	NA	Monitor	SU	Quarterly	Grab
1,1,1-Trichloroethane	NA	Monitor	µg/l	Quarterly	Grab
Chloroform	NA	Monitor	µg/l	Quarterly	Grab
Tetrachloroethylene	NA	Monitor	µg/l	Quarterly	Grab
Bromodichloromethane	NA	Monitor	µg/l	Quarterly	Grab
1,2-Dichloroethane	NA	Monitor	µg/l	Quarterly	Grab
Bis (2-ethylhexyl) Phthalate	NA	Monitor	µg/l	Quarterly	Grab
Di-n-Butyl Phthalate	NA	Monitor	µg/l	Quarterly	Grab
Copper, Total	NA	Monitor	µg/l	Quarterly	Grab
Chromium, Total	NA	Monitor	µg/l	Quarterly	Grab
Iron, Total	NA	Monitor	µg/l	Quarterly	Grab
Manganese, Total	NA	Monitor	µg/l	Quarterly	Grab
Nickel, Total	NA	Monitor	µg/l	Quarterly	Grab
Zinc, Total	NA	Monitor	µg/l	Quarterly	Grab

Discharge 001C: Photoprocessing Rinsewater from Building 118 to Sewer Collection System

Photo-developing operations discontinued in 1997. No monitoring required.

Discharge 001D: Photoprocessing Rinsewater from Building 197B discharging to the Sewer Collection System

Flow	Monitor	NA	GPD	Quarterly	Recorded
pH (range)	NA	Monitor	SU	Quarterly	Grab
Silver, Total	NA	Monitor	µg/l	Quarterly	Grab
Cyanide	NA	Monitor	µg/l	Quarterly	Grab
Phenols	NA	Monitor	µg/l	Quarterly	Grab
Nitrogen, Total	NA	Monitor	mg/l	Quarterly	Grab

91-20-2a (1/89)

ADDITIONAL REQUIREMENTS FOR ALL NON-SANITARY DISCHARGES TO THE SEWER COLLECTION SYSTEM

The following is a list of process discharges discharging to the sanitary collection system that must be monitored to determine if one or more of the flows are causing any adverse impact on the Sewage Treatment Plant. Sampling and analyses for these flows may be conducted in house and are not required to be analyzed by a State certified laboratory.

<u>Outfall Number & Effluent Parameter</u>	<u>Discharge Limitations</u>		<u>Units</u>	<u>Minimum Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>

Discharge 001E: Boiler Blowdown from boilers located in Buildings 244, 405, 422, 423 and 96 collected in a tanker and discharged to the Sewer Collection System.

Flow	Monitor	NA	GPD	Quarterly	Recorded
pH (range)	NA	Monitor	SU	Quarterly	Grab

Discharge 001F: Cooling Tower Water and Blowdown at Building 902 discharging to the Sewer Collection System

Flow	Monitor	NA	GPD	Quarterly	Recorded
pH (range)	NA	Monitor	SU	Quarterly	Grab
Polypropylene Glycol - Monobutyl Ether	NA	Monitor	µg/l	Quarterly	Grab

NOTE: A detailed daily log of oil consumption must be maintained. Should an unaccountable loss of oil be realized, an investigation must be conducted to determine the source of the oil loss. If the loss can not be reconciled, the cooling tower must be shut down, sampled, analyzed prior to discharge. If significant levels of contamination are found in the cooling tower water then results must be submitted to the Regional Water Engineer for approval to discharge.

ADDITIONAL REQUIREMENTS:

Any changes or additions of chemicals (slimicides, biocides, etc.) added to cooling water or boiler water must first be submitted to this Department for approval prior to their use.

Samples for Outfalls 001A, 001B, 001E and 001F shall be collected from either a dedicated drain line installed on the systems or from holding tanks used to collect the waste prior to discharge to the sewer collection system.

Samples for Outfalls 001C and 001D shall be collected from the manhole nearest the building.

For the period beginning with the effective date of the permit and lasting until the construction of flow monitoring stations is complete or December 31, 1994, whichever is sooner, flow monitoring requirements for Outfalls 001 thru 006 shall be "Monthly Instantaneous", and thereafter as noted in the monitoring requirements listed for each individual outfall.

91-20-2a (1/89)

TOXICITY TESTING PROGRAM

Tier 2 - Chronic Test

The permittee shall implement an effluent toxicity monitoring program beginning on the effective date of this permit. This monitoring program shall continue for a period of one year. Upon each subsequent renewal of this permit, the effluent toxicity monitoring program shall be implemented and continue for the period of one year.

A final determination regarding additional monitoring and/or implementation of a toxicity reduction evaluation will be made by the Department following the completion of this program and given to the permittee in writing by the Regional Water Engineer. The effluent toxicity monitoring program is as follows:

Outfall Number:	Effluent Parameter	Units	Monitoring Requirements	
			Measurement Frequency	Sample Type
001	Effluent Toxicity ^(a)	% Effluent ^(b)	c	d

(a) Effluent toxicity shall mean the toxicity of the effluent in chronic tests as specified. Short-term methods for estimating chronic toxicity of effluents and receiving water to freshwater organisms, Third Edition, EPA/600/4-9/002 (1994). Both a vertebrate and invertebrate species shall be used for the tests. Dilution water shall be collected according to the manual. Receiving water shall be used as dilution water unless the Department approves a different source. Effluent sampling and holding shall be done as outlined in Sections III-6 to III-8 of the manual.

(b) The Maximum Allowable Waste Concentration (MAWC) in % Effluent for both a vertebrate and an invertebrate species shall be determined and reported. The MAC in % Effluent shall be compared to the calculated Instream Waste Concentration (IWC) of the effluent. The IWC in % effluent shall be determined using the daily average effluent flow at the time of sampling and a critical receiving water flow of 0.11 cfs

(c) Discharge monitoring requirements for effluent toxicity shall be quarterly during the one year period beginning on the effective date of this permit. The results of each toxicity test shall be submitted no later than 28 days following the end of each test period. These reports shall be submitted to the Regional Water Engineer at NYSDEC - Region 1, Building 40 - SUNY, Stony Brook, New York, 11790-2356 and the Bureau of Water Compliance Operations, 625 Broadway, Albany, New York 12233-3506.

(d) Monitoring of chemical and physical parameters limited in this permit shall be coordinated so that the resulting analysis is also representative of the sample used for toxicity testing.

Chlorinated Discharges:

Discharges which are chlorinated for the purpose of disinfection should be sampled prior to chlorination or be dechlorinated prior to toxicity testing evaluation. Discharges which use chlorination as part of the waste treatment process other than for disinfection purposes, for example oxidation of cyanide, should be sampled after the chlorination process and evaluated for toxicity.

TOXICITY REDUCTION EVALUATION COMPLIANCE SCHEDULE

(a) Permittee shall perform a Toxicity Reduction Evaluation (TRE) as specified in this permit for the permitted discharge(s) in accordance with the following schedule:

<u>Outfall Number</u>	<u>Compliance Action</u>	<u>Due Date</u>
001	Submission of a proposal for a Toxicity Reduction Evaluation (TRE) study to the Department of Environmental Conservation, Bureau of Water Permits, 625 Broadway, Albany, New York 12233-3505.	45 days after letter notification from Regional Water Engineer

* The proposed TRE shall be directed towards identifying the source of the toxicity, describing procedures to reduce the toxicity to an acceptable level, identifying monitoring parameters suitable for insuring control of the toxicity, and proposing a schedule of compliance.

The TRE, including data findings and recommendations for corrective action, permit limits, and proposed self-monitoring requirements shall be submitted in a form similar to a wastewater facility engineering report. The Department will review the TRE and may redraft the permit to incorporate toxicity limits, monitoring requirements, and a schedule of compliance that will ensure acceptable toxicity levels of the effluent.

(b) The permittee shall submit to the Department of Environmental Conservation the required document(s) where a specific action is required in (a) above to be taken by a specific date, and a written notice of compliance or noncompliance with each of the above schedule dates, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;
3. A description of any factors which tend to explain or mitigate the noncompliance; and
4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next scheduled requirement on time.

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. The permittee shall develop and implement a Best Management Practices (BMP) plan, within one year of EDP to prevent, or minimize the potential for, release of significant amounts of toxic or hazardous pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; or drainage from raw material storage. Completed BMP plans shall be submitted to the Regional Water Engineer within six months of EDP.
2. The permittee shall review all facility components or systems (including material storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; and sludge and waste disposal areas) where toxic or hazardous pollutants are used, manufactured, stored or handled to evaluate the potential for the release of significant amounts of such pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. For hazardous pollutants, the list of reportable quantities as defined in 40 CFR, Part 117 may be used as a guide in determining significant amounts of releases. For toxic pollutants, the relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are listed as toxic pollutants under Section 307(a)(1) of the Clean Water Act or as hazardous pollutants under Section 311 of the Act or that are identified as Chemicals of Concern by the Industrial Chemical Survey.

3. Whenever the potential for significant release of toxic or hazardous pollutants to the State waters is determined to be present, the permittee shall identify Best Management Practices that have been established to minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider typical industry practices such as spill reporting procedures, risk identification and assessment, employee training, inspections and records, preventative maintenance, good housekeeping, materials compatibility, and security. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.
4. Development of the BMP plan shall include sampling of waste stream segments for the purpose of toxic "hot spot" identification. The economic achievability of technology-based end-of-pipe treatment will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology.
5. The BMP plan shall be documented in narrative form and shall include any necessary plot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the BMP plan shall be maintained at the facility and shall be available to authorized Department representatives upon request. As a minimum, the plan shall include the following BMP's:
 - a. BMP Committee
 - b. Reporting of BMP Incidents
 - c. Risk Identification and Assessment
 - d. Employee Training
 - e. Inspections and Records
 - f. Preventative Maintenance
 - g. Good Housekeeping
 - h. Materials Compatibility
 - i. Security
6. The BMP plan shall be modified whenever changes at the facility materially increase the potential for significant releases of toxic or hazardous pollutants or where actual releases indicate the plan is inadequate.

* A "hot spot" is a segment of an industrial facility; including but not limited to soil, equipment, material storage areas, sewer lines, etc.; which contribute elevated levels of problem pollutants to the wastewater and/or storm water collection system of that facility. For the purposes of this definition, problem pollutants are substances for which end of pipe treatment to meet a water quality or technology requirement may, considering the results of wastestream segment sampling, be deemed unreasonable. For the purpose of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is adequately higher than the end of pipe concentration of that same pollutant so as to allow for an economically justified removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.

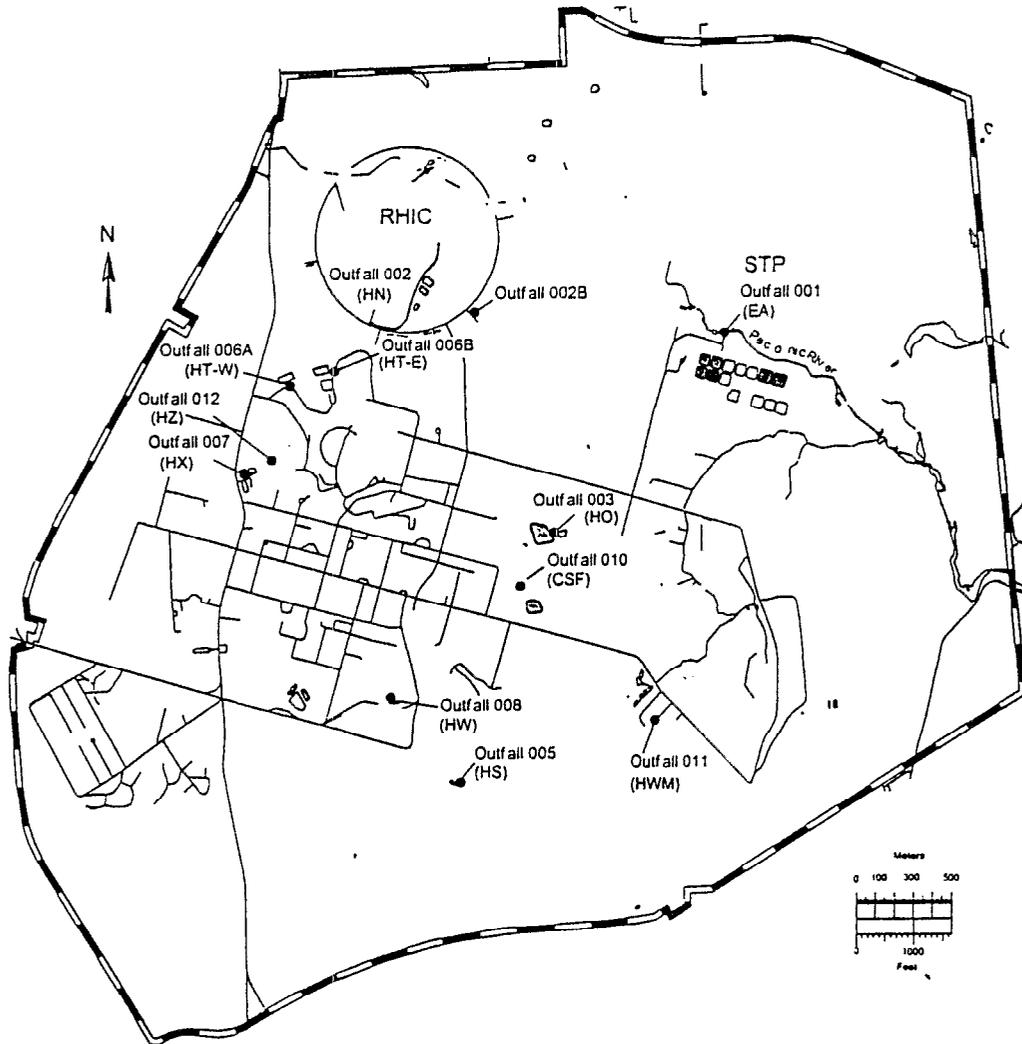
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriated units as specified herein divided by the number of days during the calendar month when measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below: (Show sampling locations and outfalls with sketch or flow diagram as appropriate)



DISCHARGE NOTIFICATION REQUIREMENTS

- a) Except as provided in (e) of these Discharge Notification Act requirements, within ninety days after the effective date of this permit modification, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in your permit. The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

<p style="text-align: center;">N.Y.S. PERMITTED DISCHARGE POINT</p> <p style="text-align: center;">SPDES PERMIT No.: NY _____</p> <p style="text-align: center;">OUTFALL No. : _____</p> <p>For information about this permitted discharge contact:</p> <p>Permittee Name: _____</p> <p>Permittee Contact: _____</p> <p>Permittee Phone: () - ### - #####</p> <p>OR:</p> <p>NYSDEC- Division of Water Regional Office Address :</p> <p>NYSDEC- Division of Water Regional Phone: () - ### - #####</p>
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- b) If, upon the effective date of this permit modification, the permittee has installed signs that include the information required by 17-0815-a(2)(a) of the ECL, but do not meet the specifications listed above, the permittee may continue to use the existing signs for a period of up to five years, after which the signs shall comply with the specifications listed above.
- c) The permittee shall periodically inspect the outfall identification signs in order to insure that they are maintained, are still visible and contain information that is current and factually correct.
- d) Within ninety days after the effective date of this permit modification, the permittee shall provide for public review at a repository accessible to the public, copies of the Discharge Monitoring Reports (DMRs) as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public at a minimum of normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of three years.

91-20-2e (2/89)

DISCHARGE NOTIFICATION REQUIREMENTS (Continued)

- (e) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (f):
- (i) such sign would be inconsistent with any other state or federal statute;
 - (ii) such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
 - (iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;
 - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or
 - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (f) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (e) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of three years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also;**

(if box is checked) monitoring information required by this permit shall be summarized and reported by submitting completed and signed Discharge Monitoring Report (DMR) forms for each one month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

Send the original (top sheet) of each DMR page to:

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
625 Broadway
Albany, New York 12233-3506
Phone: (518) 457-3790

Send the second copy (third sheet) of each DMR page to:

Suffolk County Department of Health Services
15 Horseblock Place
Farmingville, New York 11738
Attn: Mr. Alex Santino, P.E.

Include a copy of the laboratory analysis with the NYSDEC - Region 1 and SCDHS copies.

Send the first copy (second sheet) of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer - Region 1
Building 40 - SUNY @ Stony Brook
Stony Brook, New York 11790-2356

- c) A monthly "Wastewater Facilities Operation Report..." (form 92-15-7) shall be submitted (if box is checked) to the [] Regional Water Engineer and/or [] County Health Department or Environmental Control Agency listed above.
- d) **Noncompliance** with the provisions of this permit shall be reported to the Department as prescribed in the attached General Conditions (Part II).
- e) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- f) If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- g) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- h) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- i) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790-2356
Division of Water Phone: 516-444-0406 Fax: 516-444-0407

TO: John Pavacic, DEP

Attn: Mark Carrara DEP

FROM: Rob Schneck, DOW

Prepared by: R. L. Sorrentino DOW

RA 11/13/01

SUBJECT: SPDES #: 000 5835 DEC ID #: 1-4722-00032/00072-0

Permittee Name: US Dept of Energy

Facility Name: Brookhaven National Lab

DATE: October 31, 2001 **Revised November 13, 2001**

FACILITY INFO: Location: Upton County: Suffolk

Discharge Class: 03 Toxic Class: T Flow: Monitor

DEC Significant: _____ EPA Major: _____ Enf. Case: _____

ACTION TYPE: _____ New _____ Renewal **Modification** _____ Deletion

REQUESTED ACTION: Issue NOCA _____ Issue Permit w/o NOCA

_____ Issue NOIA _____ Delete

REMARKS:

Mark, Since this is BNL., I assume a NOCA is necessary, but maybe not. The mod only deletes some closed outfalls and adds some additional monitoring requirements. If you think a NOCA is not required, I'll add mod date to pgs. 1-5

November 13, 2001 Mod. Mark, I had to revise Pages 3 and 5 to correct monitoring. Attached is complete corrected draft.

Attached: Draft Permit Copy