

New York State Department of Environmental Conservation

Division of Environmental Permits

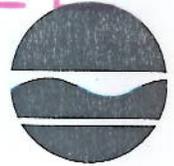
Programs and Systems, 4th Floor

625 Broadway, Albany, NY 12233-1750

Phone: (518) 402-9167 • Fax: (518) 402-9168

Website: www.dec.ny.gov

FILE



Alexander B. Grannis
Commissioner

NOV 6 2009

FACILITY INFORMATION

NAME: Brookhaven National Laboratory

LOCATION: Brookhaven (T)

COUNTY: Suffolk

SPDES NO: NY 000 5835

DEC ID NO.: 1-4722-00032/00072

Michael Holland
US Department of Energy
100 Independence Avenue SW
Washington, DC 20585

Dear SPDES Permittee:

Enclosed please find a validated NOTICE/RENEWAL APPLICATION/PERMIT form renewing your State Pollutant Discharge Elimination System (SPDES) permit for the referenced facility. This validated form, together with the previously issued permit (see issuance date of this permit in Part 3 of the NOTICE/RENEWAL APPLICATION/PERMIT form), and any subsequent permit modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified therein.

The instructions and other information that you received with the NOTICE/RENEWAL APPLICATION/PERMIT package fully described procedures for renewal and modification of your SPDES permit under the Environmental Benefit Permit Strategy (EBPS). As a reminder, SPDES permits are renewed at a central location in Albany in order to make the process more efficient. All other concerns with your permit such as applications for permit modifications, permit transfers to a new owner, name changes, and other questions should be directed to the Regional Permit Administrator at the following address:

Roger Evans
NYS-DEC
50 Circle Road
SUNY at Stony Brook
Stony Brook, NY 11790-3409
(631)444-0405

If you have already filed an application for modification of your permit, it will be processed separately through our regional office. If you have questions concerning this permit renewal, please contact Lindy Sue Czubernat at (518) 402-9165.

Sincerely,

Chief Permit Administrator

Enclosure

cc: RPA
RWE
BWP

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
NOTICE / RENEWAL APPLICATION / PERMIT



Please read ALL instructions on the back before completing this application form. Please TYPE or PRINT clearly in ink.

PART 1 - NOTICE 04/15/2009

Permittee Contact Name, Title, Address

Facility and SPDES Permit Information

US DEPT OF ENERGY BROOKHAVEN SITE OFFICE MICHAEL HOLLAND 53 BELL AVE, BLDG 464 UPTON NY 11973	Name: BROOKHAVEN NATIONAL LABORATORY Ind. Code: 8731 County: SUFFOLK DEC No.: 1-4722-00032/00072 SPDES No.: NY 000 5835 Expiration Date: 02/28/2010 Application Due By: 09/01/2009
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Are these name(s) & address(es) correct? if not, please write corrections above.

The State Pollutant Discharge Elimination System Permit for the facility referenced above expires on the date indicated. You are required by law to file a complete renewal application at least 180 days prior to expiration of your current permit. Note the "Application Due By" date above.

CAUTION: This short application form and attached questionnaire are the only forms acceptable for permit renewal. Sign Part 2 below and mail only this form and the completed questionnaire using the enclosed envelope. Effective April 1, 1994 the Department no longer assesses SPDES application fees.

If there are changes to your discharge, or to operations affecting the discharge, then in addition to this renewal application, you must also submit a separate permit modification application to the Regional Permit Administrator for the DEC region in which the facility is located, as required by your current permit. See the reverse side of this page for instructions on filing a modification request.

PART 2 - RENEWAL APPLICATION

CERTIFICATION: I hereby affirm that under penalty of perjury that the information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to section 210.45 of the Penal Law.

Michael Holland DOE-Brookhaven Site office Manager
Name of person signing application (see instructions on back) Title

Signature: m. Holland Date: 8/31/09
Signed copy rec'd 9/14/09

PART 3 - PERMIT (Below this line - Official Use Only)

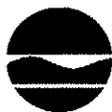
Effective Date: 3.1.10 Expiration Date: 2.28.15

William R. Adriance
Permit Administrator Address: NYSDEC - Division of Environmental Permits
Bureau of Environmental Analysis
625 Broadway, Albany, NY 12238-1750

Signature: William R. Adriance Date: NOV 6 2009

This permit together with the previous valid permit for this facility issued 5/1/05 and subsequent modifications constitute authorization to discharge wastewater in accordance with all terms, conditions and limitations specified in the previously issued valid permit, modifications thereof or issued as part of this permit, including any special or general conditions attached hereto. Nothing in this permit shall be deemed to waive the Department's authority to initiate a modification of this permit on the grounds specified in 6NYCRR §621.14, 6NYCRR §754.4 or 6NYCRR §757.1 existing at the time this permit is issued or which arise thereafter.

Attachments: General Conditions dated 1



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

First3.99

Industrial Code: **8731**
 Discharge Class (CL): **03**
 Toxic Class (TX): **T**
 Major Drainage Basin: **17**
 Sub Drainage Basin: **01**
 Water Index Number: **FB3-112**
 Compact Area:

SPDES Number: **NY 000 5835**
 DEC Number: **1-4722-00032/00072**
 Effective Date (EDP): **May 1, 2005**
 Expiration Date (ExDP): **February 28, 2010**
 Modification Dates: **July 1, 2009**

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**
 Street: **100 Independence Ave SW**
 City: **Washington**

Attention: **Michael Holland, Brookhaven Grp Mgr**
 State: **DC** Zip Code: **20585**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **Brookhaven National Laboratory**
 Location (C,T,V): **Brookhaven (T)**
 Facility Address: **53 Bell Avenue**
 City: **Upton**

County: **Suffolk**
 State: **NY** Zip Code: **11973**

NYTM -E: From Outfall No.: **001** at Latitude: **40 ° 52 ' 48 "** & Longitude: **72 ° 51 ' 12 "**
 into receiving waters known as: **Peconic River** Class: **C**

and; (list other Outfalls, Receiving Waters & Water Classifications)
002, 005 - 012 Groundwater GA

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: **U. S. Department of Energy - Brookhaven National Laboratory**
 Street: **Brookhaven Area Office, P.O. Box 5000, Bldg. 464**
 City: **Upton**
 Responsible Official or Agent: **Michael Holland, Brookhaven Group Mgr.**

State: **NY** Zip Code: **11973**
 Phone: **(631) 344-3424**

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:

BWP
 RWM
 RPA
 EPA Reg. II, Michelle Josilo
 SCDHS, Office of Pollution Control

Deputy Chief Permit Administrator: Stuart M. Fox	
Address: Division of Environmental Permits 625 Broadway Albany, NY 12233-1750	
Signature: <i>Stuart M. Fox</i>	Date: 6/9/09

ADDITIONAL OUTFALL LOCATION INFORMATION

OUTFALL	DESCRIPTION	LATITUDE	LONGITUDE
01A *	Acid/Caustic Cleaning and Rinse Water from Plating and Etching Process for Printed Circuit Boards in Bldg. 535	40° 52'48"	72° 51' 12"
01B *	Rinse Water from Centralized Degreasing in Bldg. 498	40° 52'48"	72° 51' 12"
01F *	Cooling Tower Blowdown at Bldg. 902	40° 52'48"	72° 51' 12"
002	Stormwater, Cooling Tower Blowdown and Non-contact Cooling Water from the AGS and RHIC Systems	40° 52'53"	72° 52' 27"
02B	Stormwater, Non-contact Cooling Water and Cooling Tower Blowdown from Bldg. 1004	40° 52'48"	72° 52' 41"
003	AGS Cooling Water Discharge and Stormwater	40° 52'11"	72° 52' 02"
005	NSLS Cooling Tower Blowdown and Stormwater Runoff	40° 51'30"	72° 52' 24"
06A	Stormwater Runoff, Non-contact Cooling Water from LINAC and Cooling Tower Blowdown	40° 52'38"	72° 53' 00"
06B	Stormwater, Non-contact Cooling Water and Cooling Tower Blowdown from CAD Facility	40° 52'40"	72° 52' 50"
007	Water Treatment Facility Filter Backwash	40° 52'23"	72° 53' 09"
008	Stormwater Runoff from NSLS-II Site	40° 51'44"	72° 52' 37"
009**	Miscellaneous Sanitary and Non Contact Cooling Water Discharges	various locations	various locations
010	Stormwater Runoff from Central Steam Facility	40° 52'03"	72° 52' 05"
011	Storm Runoff from HWMF	40° 51'50"	72° 51' 41"
012	Storm Runoff and Non Contact Cooling Water from Building 902	40° 52'26"	72° 52' 57"

Notes: * Outfall 01A, 01B and 01F discharge through Outfall 001.
** Outfall 009 is for miscellaneous sanitary wastewater discharges to groundwater that are permitted under EPA's Underground Injection Control Permit No. NYU500001.

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

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OUTFALL	WASTEWATER TYPE		RECEIVING WATER	EFFECTIVE	EXPIRING	
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.		This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE	
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.			
PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Type I or Type II Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Note 1: DAILY DISCHARGE.: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.

DAILY MAX.: The highest allowable daily discharge. **DAILY MIN.:** The lowest allowable daily discharge.

MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.

30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of : the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.

RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. **TYPE I:** The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level. **TYPE II:** The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results that show the stated action level exceeded for four of six consecutive samples, or for two of six consecutive samples by 20 % or more, or for any one sample by 50 % or more.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
001	Process, Sanitary and Storm Runoff			Peconic River	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	5.8	9.0	SU	Daily	Grab			
PARAMETER	COMPLIANCE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	2.3			MGD	Continuous	Recorded	1, 2
Copper, Total	NA	0.15			mg/l	Monthly	24 hr Comp.	3
Iron, Total	NA	0.37			mg/l	Monthly	24 hr Comp.	3
Lead, Total	NA	0.019			mg/l	Monthly	24 hr Comp.	3
Mercury, Total	NA	50			ng/l	Monthly	Grab	4
Nickel, Total	NA	0.11			mg/l	Monthly	24 hr Comp.	3
Silver, Total	NA	0.015			mg/l	Monthly	24 hr Comp.	
Zinc, Total	NA	0.1			mg/l	Monthly	24 hr Comp.	3
BOD ₅	NA	5			mg/l	Monthly	24 hr Comp.	5
Solids, Total Suspended	NA	20			mg/l	Monthly	24 hr Comp.	5
Ammonia (as N)	NA	1.5			mg/l	Monthly	24 hr Comp.	
Total Nitrogen	NA	10			mg/l	Monthly	24 hr Comp.	
Total Nitrogen (May 15 -Oct. 15)	NA	20			lbs./d	Monthly	24 hr Comp.	
Total Phosphorous	NA	Monitor			mg/l	Monthly	24 hr Comp.	
Solids, Settleable	NA	0.1			ml/l	Daily	Grab	
Temperature	NA	90			°F	Daily	Grab	
1,1,1-Trichloroethane	NA	5			ug/l	Twice/Month	Grab	
Methylene Chloride	NA	5			ug/l	Twice/Month	Grab	
Toluene	NA	5			ug/l	Twice/Month	Grab	
2-Butanone	NA	50			ug/l	Twice/Month	Grab	
Cyanide, Total	NA	0.1			mg/l	Twice/Month	Grab	
Fecal Coliform	200	400			MPN/100ml	Monthly	Grab	
HEDP	NA	Monitor			mg/l	Monthly	24 hr Comp.	6
Tolytriazole	NA	Monitor			mg/l	Monthly	24 hr Comp.	6
PCBs	NA	Monitor			ug/l	Quarterly	Grab	7
WET - Chronic Invertebrate	NA	1.0			TUc	Quarterly	see footnote	8
WET - Chronic Vertebrate	NA	1.0			TUc	Quarterly	see footnote	8

PERMIT LIMITS, LEVELS AND MONITORING (Continuation)

OUTFALL No.	WASTEWATER TYPE				RECEIVING WATER	EFFECTIVE	EXPIRING	
002	ASG Non Contact Cooling Water, Precipitation Drainage from Secondary Containment, Floor Drains and Storm Runoff and the STAR (Bldg 1006) Detector's Cooling Tower Blowdown, PHENIX (Bldg 1008) Detector's Blowdown, and the PHOBOS (Bldg 1010) & Bldg. 1005 Refrigerator Bldg. Cooling Tower Blowdown				Groundwater	07/01/2009	02/28/2010	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	9.0	SU	Monthly	Grab	9		
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			MGD	Monthly	Recorded	2
Oil & Grease	NA	15			mg/l	Monthly	Grab	9
1,1,1-Trichloroethane	NA	5			ug/l	Quarterly	Grab	9
Chloroform	NA	7			ug/l	Quarterly	Grab	9
Bromodichloromethane	NA	50			ug/l	Quarterly	Grab	9
HEDP	NA	0.5			mg/l	Quarterly	Grab	9,12
Tolytriazole	NA	0.2			mg/l	Quarterly	Grab	9,12
Aluminum, Total	NA	2			mg/l	Quarterly	Grab	9

OUTFALL No.	WASTEWATER TYPE				RECEIVING WATER	EFFECTIVE	EXPIRING	
02B	RF (Bldg. 1004) Cooling Tower Blowdown				Groundwater	07/01/2009	02/28/2010	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	9.0	SU	Monthly	Grab			
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	NA	Monitor			MGD	Monthly	Recorded	2
Oil & Grease	NA	15			mg/l	Monthly	Grab	

PERMIT LIMITS, LEVELS AND MONITORING (Continuation)

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING				
003	Stormwater Runoff and AGS Non Contact Cooling Water	Groundwater	07/01/2009	02/28/2010				
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
No Monitoring Required								

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING		
005	NSLS Cooling Tower Blowdown and Storm Runoff	Groundwater	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	Monitor	8.5	SU	Monthly	Grab	16

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			MGD	Monthly	Recorded	2
Oil & Grease	NA	15			mg/l	Monthly	Grab	
HEDP	NA	0.5			mg/l	Quarterly	Grab	12
Tolytriazole	NA	0.2			mg/l	Quarterly	Grab	12
Copper, Total	NA	1.0			mg/l	Quarterly	Grab	

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING		
06A	LINAC Non Contact Cooling Water and Storm Runoff (Station HT1 - Southwest Side of Basin)	Groundwater	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	Monitor	9.0	SU	Monthly	Grab	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			MGD	Monthly	Recorded	2
Oil & Grease	NA	15			mg/l	Monthly	Grab	
HEDP	NA	0.5			mg/l	Quarterly	Grab	12
Tolytriazole	NA	0.2			mg/l	Quarterly	Grab	12

PERMIT LIMITS, LEVELS AND MONITORING (Continuation)

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
06B	Cooling Towers from Building 919, Floor Drains and Storm Runoff (Station HT2)			Groundwater	07/01/2009	02/28/2009		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	9.0	SU	Monthly	Grab			
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			MGD	Monthly	Recorded	2
Oil & Grease	NA	15			mg/l	Monthly	Grab	
HEDP	NA	0.5			mg/l	Quarterly	Grab	12
Tolytriazole	NA	0.2			mg/l	Quarterly	Grab	12

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
007	Water Treatment Plant Backwash (Station HX)			Groundwater	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	9.0	SU	Monthly	Grab			
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	NA	Monitor			gpd	Monthly	Instantaneous	2

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

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
01A	Acid/Caustic Cleaning Waters and Rinse Waters from Plating and Etching Processes in Building 535B			Sewer Collection system	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	Monitor	SU	Quarterly	Grab	14		
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			gpd	Quarterly	Recorded	13, 14

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
01B	Rinse Water from Centralized Degreasing Facility in Building 498			Sewer Collection System	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	Monitor	SU	Quarterly	Grab	14		
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			gpd	Quarterly	Recorded	13, 14
Bis - (2-ethylhexyl) Phthalate	NA	Monitor			ug/l	Quarterly	Grab	14
Di -n - Butyl Phthalate	NA	Monitor			ug/l	Quarterly	Grab	14
Copper, Total	NA	Monitor			ug/l	Quarterly	Grab	14
Chromium, Total	NA	Monitor			ug/l	Quarterly	Grab	14
Iron, Total	NA	Monitor			ug/l	Quarterly	Grab	14
Manganese, Total	NA	Monitor			ug/l	Quarterly	Grab	14
Nickel, Total	NA	Monitor			ug/l	Quarterly	Grab	14
Zinc, Total	NA	Monitor			ug/l	Quarterly	Grab	14

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

OUTFALL No.	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING		
01F	Cooling Tower Water and Blowdown from Building 902			Sewer Collection System	07/01/2009	02/28/2010		
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)		
pH	Monitor	Monitor	SU	Quarterly	Grab	14		
PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	NA			gpd	Quarterly	Recorded	13, 14, 15
Polypropylene Glycol Monobutyl Ether	NA	Monitor			ug/l	Quarterly	Grab	14

FOOTNOTES APPLICABLE TO PERMIT LIMITS, LEVELS, MONITORING AND ADDITIONAL REQUIREMENTS

1. Approximately 15% of the STP effluent is permitted to be discharged to groundwater via exfiltration from the sand filter beds.
2. Quantities or concentrations of radioactivity in the effluent from all outfalls are subject to the requirements of the United States Department of Energy Order 5400.5.
3. This is an interim limit. The final limit will be determined following implementation of measures identified by the Quantification and Removal Study.
4. An interim mercury limit of 200 ng/l is in effect until September 30, 2012 while the permittee begins implementation of the mercury minimization program with the intent of meeting the 50 ng/l mercury limit.
5. The effluent value for BOD₅ and Total Suspended Solids shall not exceed 15% of the influent value.
6. Monitoring for 1-Hydroxyethylidene-1,1-diphosphonic acid (HEDP) and Tolytriazole at outfall 001 is based upon the use of water treatment chemicals containing these compounds contributing to wastewater flows to the onsite treatment plant. The intent of monitoring is to consistently demonstrate non-detectable concentrations of these compounds in the final discharge.
7. Samples shall be analyzed for PCBs using EPA method 608, with an MDL goal of 0.065 ug/l.
8. Whole Effluent Toxicity (WET) Testing:
Testing Requirements - WET testing shall consist of **Tier 2 Chronic only testing**. WET testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be only *Ceriodaphnia dubia* (water flea - invertebrate) because it has consistently proved to be the most sensitive species during previous testing. However, if the quantity or quality of effluent changes significantly, testing will again be required using both species to also include *Pimephales promelas* (fathead minnow - vertebrate). Substitute dilution water is approved for use, and can be adjusted to moderate hardness. All tests conducted should be static-renewal (two 24 hr composite samples with one renewal for Acute tests and three 24 hr composite samples with two renewals for Chronic tests). The appropriate dilution series bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is required. WET testing shall be coordinated with the monitoring of chemical and

Footnotes (Continuation):

physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow is 0.031:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

Monitoring Period - WET testing shall be performed at the specified sample frequency for the duration of the permit.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48 \text{ hr LC50})$ or $(100)/(48 \text{ hr EC50})$ (note that Acute data is generated by both Acute and Chronic testing) and $TU_c = (100)/(NOEC)$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48 hr LC50 or 48 hr EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TU. Report a TU_a of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

The complete test report including all corresponding results, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period to the Toxicity Testing Unit. A summary page of the test results for the invertebrate and vertebrate species indicating TU_a , 48 hr LC50 or 48 hr EC50 for Acute tests and/or TU_c , NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Limit Exceedances - If WET limits are exceeded at a 50% rate, than a Toxicity Identification/Reduction Evaluation (TI/RE) will be required.

9. Sampling shall be conducted at a location downstream from where the existing discharge mixes with the cooling tower blowdown from the STAR detector.
10. Samples shall be collected during a storm event.
11. Results of filtered samples shall be reported for compliance.
12. Effluent limits for 1-Hydroxyethylidene-1,1-diphosphonic acid (HEDP) and Tolytriazole are based on the understanding that water treatment chemicals containing these ingredients are being used in systems that discharge to this outfall.
13. These discharges to the sanitary collection system shall be monitored to determine if any are causing an adverse impact on the Sewage Treatment Plant. Sampling and analyses for these discharges may be conducted in house and are not required to be analyzed by a State certified laboratory.
14. Samples shall be collected from either a dedicated drain line installed on the systems or from holding tanks used to collect waste prior to discharge to the sewer collection system.
15. A detailed daily log of oil consumption shall be maintained. Should an unaccountable loss of oil be realized, an investigation shall be conducted to determine the source of the oil loss. If the loss cannot be reconciled, the cooling tower must be shut down, sampled, and analyzed prior to discharge. If significant levels of contamination are found in the cooling tower oil, results shall be submitted to the Regional Water Engineer for approval to discharge.
16. Samples for pH at outfall 005 will be collected at the cooling tower blow-down pipe discharge.

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. If and approved Best Management Practices (BMP) plan is not already in effect, the permittee shall develop a BMP plan 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; and storm water discharges including, but not limited to, drainage from raw material storage. Completed BMP plans shall be submitted by **01/01/2010** to the Regional Water Engineer at the address shown on the Recording, Reporting and Additional Monitoring Requirements. The BMP plan shall be implemented within 6 months of submission, unless a different time frame is approved by this Department.
2. Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (1) above, unless a new deadline is set explicitly by such permit modification or renewal.
3. 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; storm water, erosion, and sediment control measures; process emergency control systems; 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, cross-contamination of storm water by process materials, 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.

4. Whenever the potential for a significant release of toxic or hazardous pollutants to 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, preventive maintenance, good housekeeping, materials compatibility and security. In addition, the permittee may consider structural measures (such as secondary containment and erosion/sediment control devices and practices) where appropriate.
5. Development of the BMP plan shall include sampling of waste stream segments for the purpose of toxic "hot spot" identification. The economic achievability of effluent limits 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. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility; including but not limited to soil, equipment, material storage areas, sewer lines etc.; which contributes 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 treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.
6. 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 a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. USEPA guidance for development of storm water elements of the BMP is available in the September 1992 manual "Storm Water Management for Industrial Activities," USEPA Office of Water Publication EPA 832-R-92-006 (available from NTIS, (703)487-4650, order number PB 92235969). 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:

Special Conditions - Best Management Practices (Continuation):

- | | | |
|-------------------------------------|----------------------------|--------------------------------|
| a. BMP Committee | e. Inspections and Records | i. Security |
| b. Reporting of BMP Incidents | f. Preventive Maintenance | j. Spill prevention & response |
| c. Risk Identification & Assessment | g. Good Housekeeping | k. Erosion & sediment control |
| d. Employee Training | h. Materials Compatibility | l. Management of runoff |
7. The BMP plan shall be reviewed annually and shall be modified whenever: (a) changes at the facility materially increase the potential for significant releases of toxic or hazardous pollutants, (b) actual releases indicate the plan is inadequate or (c) a letter from the Regional Water Engineer highlights inadequacies in the plan..

MERCURY MINIMIZATION PROGRAM REQUIREMENTS

1. **General** - The permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP). The MMP is required because the 50 ng/L permit limit exceeds the state-wide calculated water quality based effluent limit (WQBEL) of 0.70 nanograms/liter (ng/L) for Total Mercury. The goal of the MMP will be to reduce mercury effluent levels in pursuit of the calculated WQBEL.

2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings or maps. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. As a minimum, the MMP shall include an on-going program consisting of: periodic monitoring; an acceptable control strategy which will become enforceable under this permit; and, submission of annual status reports.

A. **Monitoring** - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the reduction of mercury. All permit-related mercury monitoring shall be performed using EPA Method 1631 and shall be coordinated so that the results can be compared. All samples should be grabs and use of EPA Method 1669 during sample collection is recommended. Minimum required monitoring shall be 1/year at the following locations: wastewater treatment plant influents and effluents, key locations in the wastewater and/or stormwater collection systems, and known or potential mercury sources, including raw materials. Additional monitoring must be completed as may be required elsewhere in this permit or upon Department request.

B. **Control Strategy** - An acceptable control strategy is required for reducing mercury discharges via cost-effective measures, which may include, but is not limited to, more stringent control of tributary waste streams, remediation, and/or installation of new or improved treatment facilities. Required monitoring shall also be used, and supplemented if appropriate, to determine the most effective way to operate the wastewater treatment system(s) to ensure effective removal of mercury while maintaining compliance with other permit requirements.

C. **Annual Status Report** - An annual status report shall be submitted to the Regional Water Engineer and to the Bureau of Water Permits summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) all action undertaken pursuant to the strategy during the previous year, (d) actions planned for the upcoming year, and (e) progress toward the goal. The first annual report is due EDPM + 1 year and follow-up reports are due annually thereafter. Note that the complete MMP documentation need not be submitted to the Department unless otherwise requested.

3. **MMP Modification** - The MMP shall be modified whenever: (a) changes at the facility or within the collection system increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the Department identifies inadequacies in the MMP; or (d) pursuant to a permit modification.

QUANTIFICATION AND REMOVAL STUDY

- A. The permittee shall commence a study, on or before **10/01/2009**, to identify and quantify sources of copper, iron, lead, nickel and zinc in wastewater discharged to the onsite wastewater treatment system at the Brookhaven National Laboratory for the purpose of evaluating the feasibility to achieve the calculated water quality based effluent limits at Outfall 001 or, at a minimum, to identify and provide treatment or alternate disposal of controllable sources of these parameters.

The minimum practicable detection levels for all sampling shall be achieved through use of EPA Method 200.7 or an equivalent method approved in 40 CFR 136. Composite samples should be collected to ensure representativeness with the exception of intermittent or uniform discharges such as boiler blowdown or cooling tower discharges where grab samples are acceptable.

This study must include the following:

1. QUANTIFICATION AND IDENTIFICATION

(a) Source Identification:

- i) An evaluation comprised of existing data and weekly samples for a 3 month period from cooling tower discharges; boiler blowdown; non-sanitary discharge sources such as internal outfalls 01A, 01B and 01F; major sewer line branches; and laboratory discharges.
- ii) Flow data or flow estimates at sampling points must be obtained to determine mass loading estimates for these sources.

(b) Non Industrial Sources:

- i) For comparison, identify the concentration of metals present in BNL's treated drinking water supply and in sewage from strictly sanitary discharge sources. Sampling should also include additional water supply sources if applicable.
- ii) Obtain an estimate of wastewater flows to the wastewater treatment system from strictly sanitary discharge sources.

2. REMOVALS STUDY

- (a) Existing Treatment System Percent Removals - The permittee shall quantify the average percent removal of each parameter through the wastewater treatment system. The study must include collection and analysis of at least 12 influent and effluent 24 hour composite samples collected over a 3 month period. Effluent sample collection must lag influent sample collection by the hydraulic retention time of the treatment plant.
- (b) Treatment System Upgrade to Achieve Water Quality Based Effluent Limit - The permittee shall provide a description and estimated cost of providing the treatment facilities necessary to achieve the calculated Water Quality Based Effluent Limits.
- (c) Identify and Propose Treatment for Controllable Sources - The permittee shall identify specific sources of wastewater discharges with these parameters exceeding the concentrations found in the water supply and in samples of wastewater from strictly sanitary sources, and propose treatment or alternative disposal methods to reduce parameter concentrations in the discharge. Additionally, the permittee shall provide an estimate for the reduction in parameters that the proposed controls will have on the final discharge at Outfall 001.

Quantification and Study Removal (Continuation):

3. GOAL

The goal of the quantification and removals study is to achieve the calculated Water Quality Based Effluent Limits or, at a minimum, to identify and provide treatment or alternate disposal of controllable sources of these parameters.

- B. The permittee shall develop and submit an approvable Engineering Report to the offices listed on the Monitoring Reporting and Recording page of this permit, as well as the Bureau of Water Permits, South Section, 625 Broadway, Albany, NY 12233-3505 **by 07/01/2010.**

The Engineering Report must include:

1. The raw laboratory data from all sample analyses;
2. A summary of the sample results, flow rates, influent/effluent retention time, and loadings for each parameter from various sources within the sewage collection system including, but not limited, to: cooling tower discharges; boiler blowdown; other non-sanitary discharge sources such as internal outfalls 01A, 01B and 01F; laboratory discharges; major sewer line branches; strictly sanitary wastewater; water supply samples; treatment plant influent; and treatment plant effluent.
3. Identification of sources of parameters with relatively high concentrations within the collection system;
4. Identification of concentrations of parameters present in the water supply and from strictly sanitary sources within the collection system.
5. Identification of the concentrations of parameters entering the wastewater treatment system;
6. The average percent removal of parameters through the wastewater treatment system;
7. Identification of the upgrades necessary to achieve compliance with the calculated water quality based effluent limit;
8. Identification of controllable sources, proposed treatment or alternative disposal methods to reduce these parameters, and estimated reductions that these proposed controls will have on the final discharge at Outfall 001;
9. An approvable schedule for implementation of treatment or alternative disposal for controllable sources of these parameters with the intent of attaining the WQBEL.

Note: The Department may reopen this permit based upon the findings of this study to modify limits based upon modified effluent limitations in accordance with Part 702.16.

WATER TREATMENT CHEMICAL (WTC) REQUIREMENTS

New or increased use of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed WTCFX Form for each WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. **The majority of WTC authorizations do not require formal SPDES permit modification.** WTCs which are used in closed systems and cannot be discharged or those which are discharged to municipal STP do not require DEC review. **WTC use and discharge questions or requests for forms** should be directed to the DEC staff person who developed your SPDES permit. If you are not sure who that is, contact the DEC staff person who last inspected your facility.

Examples of WTCs include, biocides, coagulants, conditioners, corrosion inhibitors, defoamers, flocculants, scale inhibitors, sequestrants, and settling aids. DEC staff may also direct you to use a WTCFX Form for review and authorization of substances other than WTCs, e.g. process chemicals.

The permittee must demonstrate that the use and discharge of any WTCs containing **phosphorus**, tributary to the Great Lakes Basin or other ponded waters, is necessary and that no acceptable alternatives exist. Please note that in some cases your permit may require modification to regulate phosphorus.

Generic WTC Usage Requirements

1. WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.
2. The discharge shall not cause or contribute to a violation of water quality or an exceedance of ambient water quality criteria.
3. **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 5 years. This period may be extended by request of the DEC.
4. **The permittee shall provide an annual report**, attached to the December DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

List of WTCs Authorized for Use and Discharge*

Affected Outfall(s)	Dosage (lbs/day)		WTC Manufacturer and Product Name	WTC Function
	Avg	Max		

* - Authorized WTCs must either be listed above or identified in a letter sent to the permittee by the DEC subsequent to issuance of this permit page. In cases where a WTC is listed above and in a letter from the DEC, the more recent document will control.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date																																																																																				
	All Applicable Outfalls	Water Treatment Chemical Usage Notification Requirements Form Submission Update - The Permittee shall resubmit updated Water Treatment Chemical (WTC) Usage Notification Requirements for SPDES Permittees forms to the Department for review and approval. This review and approval will supercede past WTC approvals. Separate forms shall be submitted for each WTC and for each separate discharge outfall for review and approval. The forms must be completed with all requested information and must include the WTC composition ingredients to 100%. Business confidential information should be properly labeled as "confidential" and will be handled appropriately. Based upon recent correspondence with the Permittee, the current list of WTC in use at this time include Drew 2135, Drew Biosperse 250, Drew Biosperse 550, Drewbrom One L, Protecsol, Biosperse 261T, WPD 11 166, Betz Cortrol IS102Betz Steamate NA700, Betz Optisperse CL362, Optisoerse ADJ 562 and Betz Cortrol IS100. The completed Water Treatment Chemical (WTC) Usage Notification Requirements for SPDES Permittees forms shall be submitted to NYSDEC, Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505.	01/01/2010																																																																																				
	See Outfalls Listed	<p>Short Term Monitoring - The permittee shall conduct sampling for the following parameters that were detected as part of the permittee's sampling and listed in the permit application. Sampling shall be once per week for a period of 3 months. The permittee submit the results of the analyses along with the daily flows:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Outfalls</th> <th>EPA Method of Analysis Required</th> <th>Sample Type</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>06B, 007</td> <td>200.7</td> <td>Grab</td> </tr> <tr> <td>Bromide</td> <td>002, 06A, 06B, 012</td> <td>300.0</td> <td>Grab</td> </tr> <tr> <td>Bromodichloromethane</td> <td>003</td> <td>624</td> <td>Grab</td> </tr> <tr> <td>Bromoform</td> <td>002, 003, 06B</td> <td>624</td> <td>Grab</td> </tr> <tr> <td>Chloroform</td> <td>003, 06A</td> <td>624</td> <td>Grab</td> </tr> <tr> <td>Dibromochloromethane</td> <td>003</td> <td>624</td> <td>Grab</td> </tr> <tr> <td>1,2-Dichloroethane</td> <td>001</td> <td>624</td> <td>Grab</td> </tr> <tr> <td>4,4' DDD</td> <td>001, 01A, 01E</td> <td>608</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>4,4' DDE</td> <td>001, 01A, 01E</td> <td>608</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>4,4' DDT</td> <td>001, 01A, 01E</td> <td>608</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>Endosulfan</td> <td>001, 01A</td> <td>608</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>Endrin</td> <td>001, 01A</td> <td>608</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>Iron (filtered)</td> <td>005, 06B, 007</td> <td>200.7</td> <td>Grab</td> </tr> <tr> <td>Manganese</td> <td>06B, 007</td> <td>200.7</td> <td>Grab</td> </tr> <tr> <td>Mercury</td> <td>007</td> <td>245.7</td> <td>Grab</td> </tr> <tr> <td>Nitrogen, Total</td> <td>06B</td> <td>351.2 & 353.2</td> <td>Grab</td> </tr> <tr> <td>Phenols, Total</td> <td>001, 002, 06A, 06B, 008, 010 & 012</td> <td>420.2</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>Selenium</td> <td>001, 01F, 06B & 007</td> <td>200.7</td> <td>24 hr. Comp./Grab *</td> </tr> <tr> <td>Thallium</td> <td>02B</td> <td>200.7</td> <td>Grab</td> </tr> <tr> <td>Vanadium</td> <td>001</td> <td>200.7</td> <td>24 hr. Comp./Grab *</td> </tr> </tbody> </table> <p>* Sample type - 24 hour composite sampling is required at outfall 001 only, grab sampling at other outfalls is acceptable.</p> <p>After review of the results, the Department may reopen the permit to add additional limits or action levels for these parameters.</p>	Parameter	Outfalls	EPA Method of Analysis Required	Sample Type	Arsenic	06B, 007	200.7	Grab	Bromide	002, 06A, 06B, 012	300.0	Grab	Bromodichloromethane	003	624	Grab	Bromoform	002, 003, 06B	624	Grab	Chloroform	003, 06A	624	Grab	Dibromochloromethane	003	624	Grab	1,2-Dichloroethane	001	624	Grab	4,4' DDD	001, 01A, 01E	608	24 hr. Comp./Grab *	4,4' DDE	001, 01A, 01E	608	24 hr. Comp./Grab *	4,4' DDT	001, 01A, 01E	608	24 hr. Comp./Grab *	Endosulfan	001, 01A	608	24 hr. Comp./Grab *	Endrin	001, 01A	608	24 hr. Comp./Grab *	Iron (filtered)	005, 06B, 007	200.7	Grab	Manganese	06B, 007	200.7	Grab	Mercury	007	245.7	Grab	Nitrogen, Total	06B	351.2 & 353.2	Grab	Phenols, Total	001, 002, 06A, 06B, 008, 010 & 012	420.2	24 hr. Comp./Grab *	Selenium	001, 01F, 06B & 007	200.7	24 hr. Comp./Grab *	Thallium	02B	200.7	Grab	Vanadium	001	200.7	24 hr. Comp./Grab *	01/01/2010
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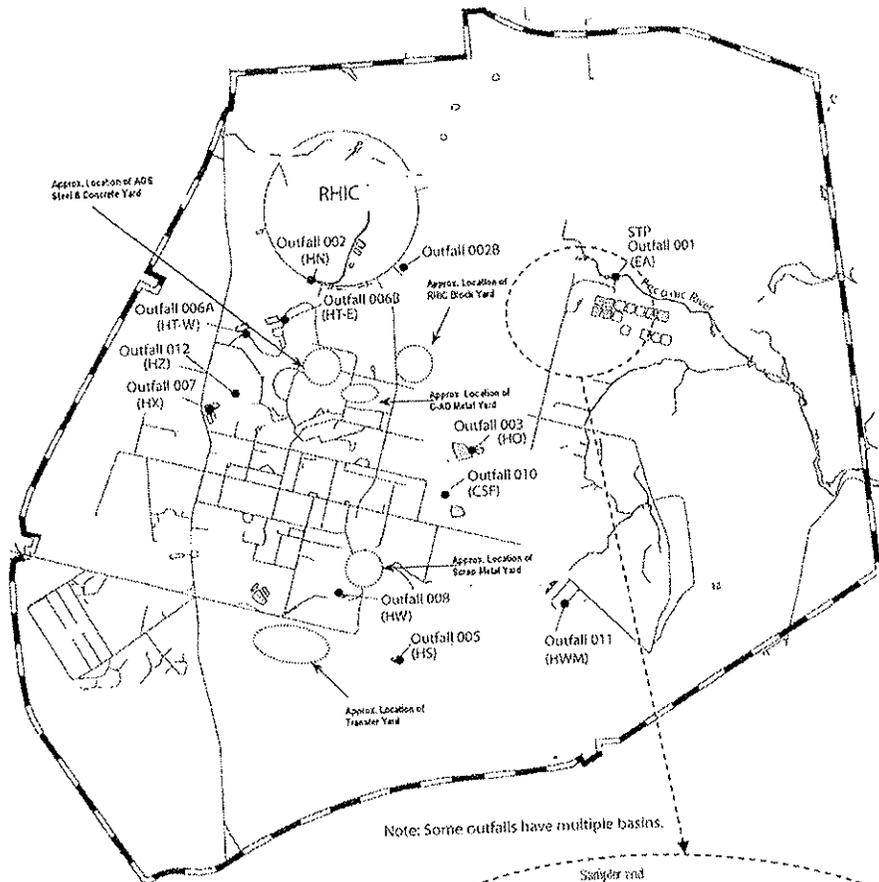
The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

Schedule of Compliance (Continuation):

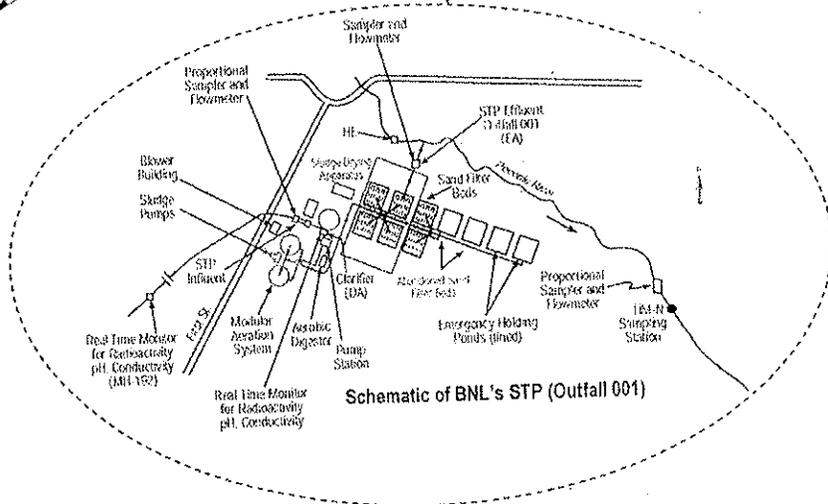
- b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
1. A short description of the non-compliance;
 2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
 3. A description of any factors which tend to explain or mitigate the non-compliance; and
 4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



Note: Some outfalls have multiple basins.



Schematic of BNL's STP (Outfall 001)

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c) and (f) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) 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:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY _____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: () - ### - #####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: () - ### - #####

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of 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, during 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.
- (f) If, upon November 1, 1997, 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.
- (g) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

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, monitoring information required by this permit shall be summarized and reported by submitting;**

(if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 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.

(if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

(if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
 Regional Water Engineer and/or County Health Department or Environmental Control Agency specified below

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) 402-8177

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

Department of Environmental Conservation
 Regional Water Manager
 SUNY at Stony Brook
 50 Circle Road
 Stony Brook, New York 11790-3409

Phone: (631) 444-0405

Send an **additional copy** of each DMR page to:

Alex Santino, P.E.
 SCDHS, Office of Pollution Control
 15 Horseblock Place
 Farmingville, NY 11738

- c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in the attached General Conditions (Part II).
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the 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.
- f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) 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.
- h) 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.