Environmental Services Division

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September 19, 2001

Mr. Robert Desmarais Director, Project Management Division U. S. Department of Energy Brookhaven Group Upton, NY 11973

Dear Mr. Desmarais:

#### SUBJECT: NPDES - Discharge Monitoring Report (DMR) for August 2001 REFERENCE: Letter from Robert Desmarais to Cunniff dated August 30, 2001

Included as Attachment I, please find the DMR for the month of August 2001. Chemical analyses for the reported parameters are conducted by a NYS Department of Health certified contractor laboratory. Copies of the analytical reports are contained in Attachments II, and III. Field measured parameters (pH, settleable solids, flow) are recorded and/or measured by the Plant Engineering Division, Sewage Treatment Plant Operators or the Environmental Services Division, Field Sampling Team. With the exception of one excursion for pH for Outfall 005, review of the analytical data shows that all parameters met their respective SPDES effluent limitations this reporting period. With regard to pH the sample collected on August 10, 2001 exhibited a pH of 8.9 SU. This value exceeded the SPDES permit limit of 8.5 SU. A Noncompliance Report has been prepared and included as Attachment IV.

Please note that for the majority of the Outfalls, flow measurements are conducted weekly or monthly; consequently, a daily maximum flow rate cannot be reported. All flow values reported for Outfalls 002, 003, 005, 006A, and 006B are, therefore, daily averages. Collection and analysis of the SPDES permit samples are performed in accordance with the guidelines of the BNL Quality Assurance program. These guidelines include the routine calibration of instruments, standard operating procedures for collection and analysis of samples, use of standard methods of analysis, and validation of the contractor analytical data by the BNL analytical services laboratory. Brookhaven National Laboratory personnel collected all samples. A Quality Assurance inspection is performed periodically on contractor laboratories. The Quality Assurance documentation is available from the Environmental Services Division and Plant Engineering Divisions. Based on this information, we believe the values reported on the DMR are representative of the effluent from the BNL during the month of August 2001.

Please sign each page of the DMR where indicated and transmit the DMR and associated attachments to the New York State Department of Environmental Conservation and the Suffolk County Department of Health Services no later than September 28, 2001. If there are any questions

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Cunniff to Desmarais

regarding the information contained on the DMR or the analytical data packages, please do not hesitate to contact R. Lee at extension 3148 or M. Allocco at extension 3166.

Sincerely,

Lori Cunniff, CEP Division Manager



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Attachment I: Discharge Monitoring Report for August 2001.

Attachment II: Analytical Results from H2M Labs for samples collected on 8/6/01 and 8/9/01 from Outfall 001.

Attachment III: Analytical Results from H2M Labs for samples collected from Outfalls 002, 003, 005, 006A, 006B, 007, 008, and 010.

Attachment IV: Noncompliance Report for August SPDES Permit Excursion at Outfall 005.

M. Allocco cc: w/attachments L. Cunniff w/o attachments J. Higbie w/attachments S. Krinsky w/o attachments E. Lessard w/o attachments E. Murphy w/attachments T. Sheridan w/o attachments D. Van Duyne w/attachments

W. Chaloupka
G. Granzen
C. Johnson
R. Lee
D. Lowenstein
A. Queirolo
R. Travis
W/attachments

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#### Brookhaven National Laboratory SPDES Permit No. NY0005835 Discharge Monitoring Report for August 2001 Discharge Monitoring Report Notes:

- 1. The reported concentration is estimated at less than the method detection limit but greater than the instrument detection limit.
- 2. There was no discharge from Outfalls 002A and 002B during this reporting period. In May Outfalls 002A and 002B were connected to the stormwater collection systems and no longer discharge locally. The cooling water discharge from Bldg. 1002 (002A) is now directed to Outfall 002B located at Building 1004. The cooling water discharge from Bldg. 1010 is now directed to Outfall 002 (HN). A SPDES permit modification package has been submitted to the NYSDEC to reflect this change.
- 3. Since flow records are maintained on a weekly or monthly basis, the flow rate provided is the daily average.
- 4. Flow is estimated based upon an instantaneous flow measurement and the assumption that flow continued for the entire day (i.e., 1,440 minutes).
- 5. The Environmental Services Division was notified in early June that the cooling water discharge from the Brookhaven Medical Research Reactor would be terminated due to the permanent shutdown of the facility. A SPDES permit modification package has been submitted to the NYSDEC to reflect this change.
- 6. The percent removal for BOD, 5-day was calculated using one half the MDL. All samples collected on 8/6/01 and 8/9/01 were below the detection limit of 2 mg/L.
- 7. The pH concentration was above the performance criteria of 8.5 SU for the grab sample collected on 8/10/01. Please see Attachment IV for a description of this excursion.

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ATTACHMENT I

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### **BROOKHAVEN NATIONAL LABORATORY**

# SPDES PERMIT NO. NY0005835

# DISCHARGE MONITORING REPORT FOR AUGUST 2001

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Mr. Michael Holland	subnitter	d. Based on my inquiry of persons directly responsible	the person or persons who r for gathering the informati	nanage (he system ion, the informat	lon			(.2)	⊃ <i>4.4</i> <sup>™</sup> 2	أغده		
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OMMENTS AND EXPLANATION OF	ANY VIOLATIONS	(Reférence all atta	chments here)							* 1 5***	**************************************	* * * *
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Form Approved.

QUANTITIES OR CONCENTRATIONS OF RADIOACTIVITY IN EFFLUENT ARE SUBJECT TO REQUIREMENTS OF THE USDOE INCL BUT NOT LIMITED TO USDOE ORDER 5400.5. APPROX 15% OF STP DISCHARGE CAN BE TO GW VIA EXFILT FROM SFB"S.

PERMITTEE NAME/ADDRESS (Include Facility N	Vama/Location (fD(farent)	)	NATIONAL POL DISCI	LUTANT DISCH	HARGE ELIMINATION SYS	item (NPDES) (DMR)	- 			Form App OMB No.	
NAME U S D O E ADDRESS BROOKHAVEN NATI 53 BELL AVE, BL		RATORY	NYODO			32 A HARGE NUMBER	(SUBR 01) F - FINAL	~~~ <b>1</b> 1	*****	~/1010	э с <b>т</b>
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Mr. Michael Holland Area Group Manage TYPED OR PRINTED	submitte or those submitte	e that qualified personnel pr ed. Based on my inquiry of i persons directly responsible ed is, to the best of my know	the person or persons who c for gathering the informat	manage the syste tion, the informa-	tin, ilon			631 344-	3AIX	4	
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COMMENTS AND EXPLANATION OF A	ANY VIOLATIONS	Reférence all atta	chments here)								

DISCHARGE MAY BE DIRECTED TO SURROUNDING LOW LYING AREA INSIDE ROADWAY THAT IS INSIDE RHIC RING. ONCE SW. Collection sys is extended to 1010, the phobos detector's C t B should be directed to outfall #002 & Roadway C t B should be directed to new recharge basin. No trt chems without prior dec approval.

PERMITTEE NAME/ADDRESS (Include Failing NAME 11 8 8 7 5	Nexed Location if D(Germi)	)	NATIONAL POI DISC	LUTANT DISC	HARGE ELIMINATION SYS	TEM (NPDES)				Form Ap • OMB No	pproved. 2:2040-0004
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Mr. Michael Hollar	CA submitted.	at qualified personnel pro Based on my inquiry of th	perly gather and evaluate the person of person of persons who me	e Information							<u> </u>
Area Group Mara	Ser submitted is I am aware	rions directly responsible f s, to the best of my knowle that there are significant t	or gathering the information edge and belief, true, accura	te, and complete	a			1-344-34	iX		
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STORMWATER COLLECTION SYSTEM IS EXTENDED TO BLOG 1010 & A NEW RECHARGE BASIN IS CONSTRUCTED, DISCHARGE

-SHBULD-BE-TO-MEN-DAST No PA Form 3320-1 (Rev. 3/99) Previous editions may be used.

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PERMITTEE NAME/ADDRESS (Include Feedling) NAME USDOE	lams/Location (fD(ferent	<i>v</i>	NATIONAL POL	LUTANT DISCH	ARGE ELIMINATION SYS	TEM (NPDES) (DMR)	JOR			Form Ap OMB No	proved. 2040-0004
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Mr. Michael Holland		d. Based on my inquiry of t persons directly responsible	the person or persons who n for gathering the information	unnage the system on, the information	no i			1 31 31			
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-WITH THE COOLING TOWER BLOWDOWN FROM THE STAR DETECTOR.

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ATTN: GEORGE MALOSH.	GROUP MG	<u>k</u>	€				NOTE: Read ine	structions befor	79 COM		
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SEE PERMIT FOR ADDITIONAL NOTES, COMMENTS AND REQUIREMENTS

PERMITTEE NAME/ADDRESS (Include Facility) NAME USDOE	len4/Location (f D(fferent)		NATIONAL POL DISC	LUTANT DISCH	IARGE ELIMINATION SYS		AJOR			Form Aj OMB No	pproved. o. 2040-0004
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Mr. Michael Holland Area Group Manag	d to assure to assure submitted or those p submitted	. Based on my inquiry of ( ersons directly responsible is, to the best of my know	operty gather and evaluate the person or persons who n for gathering the informal ledge and belief, true, accus	nanage the system on, the informat rate, and comple	lon te,		EVECUTIVE	31-344-3	3424		
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SEE PERMIT FOR ADDITIONL NOTES, COMMENTS & REQUIREMENTS

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Mr. Michael Hollan		e that qualified personnel pro	pervision in accordance with roperty gather and evaluate t	the information	1	i							
		persons directly responsible !	the person or persons who n e for gathering the information wiedge and belief, true, accur	tion, the informati	tion	J			63	31-344-3	424		
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SEE PERMIT FOR ADDITIONAL NOTES, COMMENTS & REQUIREMENTS

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PERMITTEE NAME/ADDRESS (Include Feeling)	Name/Location (f D(fferent)		NATIONAL POL	LUTANT DISCH	HARGE ELIMINAT	TION SYST	IEM (NPDES)				Form Ap OMB No	proved. 2040-0004
NAME USDOE		™. 44. <sup>49</sup> 89 (75 €7 4. 4) #					7.8	HAJOR (SUBR 01)				
ADDRESS BROOKHAVEN NATI 53 BELL AVE, BL		KAIUKY	NY DOO PERM	IT NUMBER	1		ARGE NUMBER	F - FINAL				
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FACILITY BROOKHAVEN NATI	ONAL LABO	RATORY	YEAR	MO D/			MO DAY					
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ATTN: GEORGE MALOSH	GROUP ME			· .	Т ———						FREQUENCY	·J
PARAMETER		QU,	ANTITY OR LOADIN	IG 1		QUALI	TY OR CONCE	NTRATION		NO.	OF ANALYSIS	SAMPLE TYPE
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