NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D
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www.dec.ny.gov

September 19, 2022

Mr. Edward J. Hannon
Northrop Grumman Corporation Aerospace Systems
925 South Oyster Bay Rd.
M/S X01-14
Bethpage, NY 11714-3582

Re: SPDES Permit Equivalent Application,
Northrup Grumman OU3 Bethpage
Groundwater Containment System.
NYSDEC Site No 130003A

Ed:

In a memo dated May 17, 2022 Northrup Grumman requested discharge criteria for the operation of the modified Bethpage Groundwater Containment System (BGWCS) in accordance with SPDES Permit Equivalent Application Requirements for Remediation Discharges to Surface or Groundwater. The BGWCS extracts groundwater from four wells along the south-side of Bethpage Community Park to prevent off-site migration of contaminants and treats this water at the McKay Field treatment plant using an air stripper treatment system. The treated water is then discharged at the adjacent Nassau County recharge basin. To enhance groundwater capture, two monitoring wells, BCPMW 4-1 and BCPMW 4-2, were recently converted to extraction wells and added to the treatment system. BCPMW 4-1 and BCPMW 4-2 were added to the BGWCS to remove a localized area of elevated VOCs observed in groundwater samples collected from these two wells. Additionally, two (2) 2,000 lb liquid granular activated carbon vessels were added to the treatment train at the treatment plant. The Department has reviewed this request and has established discharge limits and monitoring requirements for the BGWCS. These discharge limits, and associated monitoring requirements, are detailed in the attached memorandum from the NYSDEC Division of Water.

It is understood the McKay Field Treatment Plant is to be upgraded with advanced oxidation process (AOP) technology to remove 1,4-Dioxane by early 2024. Until then, an interim effluent limit of monitor will be in place. For 1,4-Dioxane analysis, please use EPA Method 8270 SIM (selected ion monitoring).

Thanks, and please do not hesitate to contact me at (518) 402-9554 or matthew.travis@dec.ny.gov with any questions.

Sincerely,

Matthew E Travis Date: 2022.09.20 12:08:18 -04'00'

Matthew Travis
Project Manager
Remedial Section B, Remedial Bureau D
Division of Environmental Remediation

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ec: J. Pelton, NYSDEC, Central Office
J. Pilewski, NYSDEC Region 1
E. Star, NYSDEC Region 1
J. Sullivan, NYSDOH

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233
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M E M O R A N D U M
SPDES Permit Equivalent

TO: Matt Travis, DER

FROM: Gwendolyn Temple, Bureau of Water Permits, DOW

SUBJECT: SPDES Permit Equivalent: Northrop Grumman, DER Site ID# 1-30-003A modification

DRAINAGE BASIN: 17 / 02

DATE: September 15, 2022

In response to your request dated May 19, 2022 requesting to modify the OU3 groundwater containment system to allow for additional groundwater extraction, conveyance, and treatment at the existing groundwater treatment plant, attached please find the modified effluent limitations and monitoring requirements for the above noted remediation discharge. A final effluent limit for 1,4-Dioxane has been added for Outfall 001, 005, and 006 with the expectation that a schedule of compliance be included to allow for a treatment system upgrade.

The discharge consists of treated water from remediation of the Northrop Grumman plume. The treatment system consists of air stripping, bag filters, and liquid-phase granular activated carbon.

As stated in 6 NYCRR 750-1.5(a)(2) a SPDES permit is not required for “any discharge in compliance with an order issued pursuant to ECL 27-1313 to implement a Department approved inactive hazardous waste remedial site program provided that such discharge complies with the substantive requirements of a SPDES permit, or any discharge under any remedial or corrective action work plan approved by the department provided that such work plan includes public notification and response to the public equivalent to that required under either ECL 27-1313 or” 6 NYCRR Part 621. This exemption applies so long as “such discharge complies with the substantive requirements of a SPDES permit.” OGC, DER, and DOW staff interpret that regulatory exemption to apply to the following programs: State Superfund, Brownfield Cleanup, and RCRA Corrective Action programs.

Thus, DER will be responsible for ensuring compliance with the attached effluent limitations and monitoring requirements, and approval of all engineering submissions. The additional conditions identify the appropriate DER contact person who will receive all effluent results, engineering submissions, and modification requests. The Regional Water Engineer should be kept appraised of the status of this discharge and, in accordance with the attached criteria, receive a copy of the effluent results for informational purposes.

If you have any questions, please call Gwendolyn Temple at 518-402-8194.

Attachment (Effluent Limitations and Monitoring Requirements)
cc: Region 1 Regional Water Engineer (via email, w/attach)
BWP Section Chief, DOW (via email, w/attach)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233
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Northrop Grumman, Bethpage Facility
Project Site Remediation

Wastewater Discharge SPDES Permit Equivalent

DRAINAGE BASIN: **17 / 02**

DER Site No: **1-30-003A**
Effective Date: **9/1/2017**
Expiration Date: **8/31/2027**
Modification Date(s): **9/15/2022**

Discharger Name and Address:

Northrop Grumman
Attn: Edward J. Hannon
925 South Oyster Bay Rd.
Bethpage, NY 11714
516-575-2333
Edward.hannon@ngc.com

is authorized to discharge from the facility described below:

Northrop Grumman, Bethpage Facility

From the following outfall(s):

Outfall #	Outfall Description	Location	Receiving Water	WIN *	Class
001 (OU3)	Treated Air Stripper and Soil Gas Containment Condensate Discharge to Nassau County Recharge Basins	40° 45' 20" N 73° 29' 28" W	Groundwater	N/A	GA
005 (OU2)	Treated Air Stripper Discharge to South Recharge Basins	40° 44' 29" N 73° 29' 34" W	Groundwater	N/A	GA
006 (OU2)	Treated Air Stripper Discharge to West Recharge Basins	40° 44' 27" N 73° 29' 59" W	Groundwater	N/A	GA

* Water Index Number

EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

OUTFALL	DISCHARGE TYPE	LATITUDE/ LONGITUDE	RECEIVING WATER and CLASS	EFFECTIVE	EXPIRING
001 (OU-3)	Treated Air Stripper and Soil Gas Containment Condensate Discharge to Nassau County Recharge Basins	40° 45' 20" N 73° 29' 28" W	Groundwater, Class GA	9/1/2017	8/31/2027

The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall and Parameters **Outfall 001**	**CAS No.**	**Monthly Avg. Limits**	**Daily Max Limits**	**Units**	**Minimum Monitoring Requirements**		**FN**
					Measurement Frequency	**Sample Type**	
Flow	NA	Monitor	Monitor	GPD	Continuous	Recorder	
pH (range)	NA	5.0 – 8.5		SU	Monthly	Grab	
Total Nitrogen (as N)	NA	Monitor	10	mg/L	Monthly	Grab	
Iron, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Manganese, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Sum of Iron, Total and Manganese, Total	NA	Monitor	1000	µg/L	Monthly	Calculated	
1,1-Dichloroethylene	00075-35-4	Monitor	5	µg/L	Monthly	Grab	
Methylene Chloride	00065-09-2	Monitor	5	µg/L	Monthly	Grab	
Tetrachloroethylene	00127-18-4	Monitor	5	µg/L	Monthly	Grab	
1,1,1-Trichloroethane	00071-55-6	Monitor	5	µg/L	Monthly	Grab	
Vinyl Chloride	00075-01-4	Monitor	5	µg/L	Monthly	Grab	
1,2-(trans)-Dichloroethylene	00156-60-5	Monitor	5	µg/L	Monthly	Grab	
1,2-(cis)-Dichloroethylene	00156-59-2	Monitor	5	µg/L	Monthly	Grab	
Chloroform	00067-66-3	Monitor	5	µg/L	Monthly	Grab	
Trichlorofluoroethane (Freon 113)	00076-13-1	Monitor	5	µg/L	Monthly	Grab	
1,4-Dioxane	00123-91-1	Monitor	0.35	µg/L	Monthly	Grab	1,2
Benzene	00071-43-2	Monitor	1	µg/L	Monthly	Grab	
1,1-Dichloroethane	00075-34-3	Monitor	5	µg/L	Monthly	Grab	
Ethylbenzene	00100-41-4	Monitor	5	µg/L	Monthly	Grab	
Toluene	00108-88-3	Monitor	5	µg/L	Monthly	Grab	
Trichloroethylene	00079-01-6	Monitor	5	µg/L	Monthly	Grab	
Xylene, Ortho- (1,2-)	00095-47-6	Monitor	5	µg/L	Monthly	Grab	
Xylene, Meta- (1,3-)	00108-38-3	Monitor	5	µg/L	Monthly	Grab	
Xylene, Para- (1,4-)	00106-42-3	Monitor	5	µg/L	Monthly	Grab	

OUTFALL	DISCHARGE TYPE	LATITUDE/ LONGITUDE	RECEIVING WATER and CLASS	EFFECTIVE	EXPIRING
005 (OU2)	Treated Air Stripper Discharge to South Recharge Basins	40° 44' 29" N 73° 29' 34" W	Groundwater, Class GA	9/1/2017	8/31/2027

Outfall and Parameters	**CAS No.**	**Monthly Avg. Limits**	**Daily Max Limits**	**Units**	**Minimum Monitoring Requirements**		**FN**
Outfall 001					**Measurement Frequency**	**Sample Type**	
Flow	NA	Monitor	Monitor	GPD	Continuous	Recorder	
pH (range)	NA	5.0 – 8.5		SU	Monthly	Grab	
Total Nitrogen (as N)	NA	Monitor	10	mg/L	Monthly	Grab	
Iron, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Manganese, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Sum of Iron, Total and Manganese, Total	NA	Monitor	1000	µg/L	Monthly	Calculated	
1,1-Dichloroethylene	00075-35-4	Monitor	5	µg/L	Monthly	Grab	
Methylene Chloride	00065-09-2	Monitor	5	µg/L	Monthly	Grab	
Tetrachloroethylene	00127-18-4	Monitor	5	µg/L	Monthly	Grab	
1,1,1-Trichloroethane	00071-55-6	Monitor	5	µg/L	Monthly	Grab	
Trichloroethylene	00079-01-5	Monitor	5	µg/L	Monthly	Grab	
Vinyl Chloride	00075-01-4	Monitor	5	µg/L	Monthly	Grab	
1,2-(trans)-Dichloroethylene	00156-60-5	Monitor	5	µg/L	Monthly	Grab	
1,2-(cis)-Dichloroethylene	00156-59-2	Monitor	5	µg/L	Monthly	Grab	
Chloroform	00067-66-3	Monitor	5	µg/L	Monthly	Grab	
Trichlorofluoroethane (Freon 113)	00076-13-1	Monitor	5	µg/L	Monthly	Grab	
1,4-Dioxane	00123-91-1	Monitor	0.35	µg/L	Monthly	Grab	1,2

OUTFALL	DISCHARGE TYPE	LATITUDE/ LONGITUDE	RECEIVING WATER and CLASS	EFFECTIVE	EXPIRING
006 (OU2)	Treated Air Stripper Discharge to West Recharge Basins	40° 44' 27" N 73° 29' 59" W	Groundwater, Class GA	9/1/2017	8/31/2027

Outfall and Parameters **Outfall 001**	**CAS No.**	**Monthly Avg. Limits**	**Daily Max Limits**	**Units**	**Minimum Monitoring Requirements**		**FN**
					Measurement Frequency	**Sample Type**	
Flow	NA	Monitor	Monitor	GPD	Continuous	Recorder	
pH (range)	NA	5.0 – 8.5		SU	Monthly	Grab	
Total Nitrogen (as N)	NA	Monitor	10	mg/L	Monthly	Grab	
Iron, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Manganese, Total	NA	Monitor	600	µg/L	Monthly	Grab	
Sum of Iron, Total and Manganese, Total	NA	Monitor	1000	µg/L	Monthly	Calculated	
1,1-Dichloroethylene	00075-35-4	Monitor	5	µg/L	Monthly	Grab	
Methylene Chloride	00065-09-2	Monitor	5	µg/L	Monthly	Grab	
Tetrachloroethylene	00127-18-4	Monitor	5	µg/L	Monthly	Grab	
1,1,1-Trichloroethane	00071-55-6	Monitor	5	µg/L	Monthly	Grab	
Trichloroethylene	00079-01-5	Monitor	5	µg/L	Monthly	Grab	
Vinyl Chloride	00075-01-4	Monitor	5	µg/L	Monthly	Grab	
1,2-(trans)-Dichloroethylene	00156-60-5	Monitor	5	µg/L	Monthly	Grab	
1,2-(cis)-Dichloroethylene	00156-59-2	Monitor	5	µg/L	Monthly	Grab	
Chloroform	00067-66-3	Monitor	5	µg/L	Monthly	Grab	
Trichlorofluoroethane (Freon 113)	00076-13-1	Monitor	5	µg/L	Monthly	Grab	
1,4-Dioxane	00123-91-1	Monitor	0.35	µg/L	Monthly	Grab	1,2

Footnotes:

1. 1,4-Dioxane:
   a. Samples for this parameter shall be taken at the following locations for the first 12 months of operation of the upgraded treatment train: Treatment system influent, air stripper effluent, 1,4-dioxane treatment, LGAC vessel effluent, and treatment system effluent. Following the first 12 months of operation of the upgraded treatment train, sampling can be reduced to treatment system effluent only. Sampling data shall be appended to the routine monitoring requirements listed above.

2. This is a final effluent limitation. The interim effluent limitation shall be **Monitor** until the completion of the upgrade for the treatment system as specified in the Schedule of Compliance established by DER.

Additional Conditions:

1. Discharge is not authorized until such time as an engineering submission showing the method of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:

   Matthew Travis
   Division of Environmental Remediation
   NYSDEC, 625 Broadway, Albany, New York 12233- 7015,
   Tel: 518-402- 9554
   Email: matthew.travis@dec.ny.gov

   With a copy sent to:

   Regional Water Manager, Region 1
   50 Circle Road, Stony Brook, New York, 11790-3409 Phone: (631) 444-0405
   Email: Jennifer.pilewski@dec.ny.gov

2. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the effluent side of the final treatment unit prior to discharge to the receiving water body unless otherwise noted above.

3. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136 unless other test procedures have been specified in this permit.

4. Only site generated wastewater is authorized for treatment and discharge.

5. Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.

6. Both concentration (mg/l or µg/l) and mass loadings (lbs/day) must be reported to the Department for all parameters except flow and pH.

7. Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.

8. This discharge and administration of this discharge must comply with the substantive requirements of 6NYCRR Part 750.

MONITORING LOCATIONS