



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	9999	NAICS Code:	999900	SPDES Number:	NY0256030
Discharge Class (CL):	04	DEC Number:	5-1552-00138/00002		
Toxic Class (TX):	N	Effective Date (EDP):	EDP		
Major-Sub Drainage Basin:	10 - 4	Expiration Date (ExDP):	ExDP		
Water Index Number:	GA	Item No.:	-		
Compact Area:	-	Modification Dates (EDPM):	-		

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.)

PERMITTEE NAME AND ADDRESS					
Name:	Steven Helsby		Attention:		
Street:	P.O. Box 92				
City:	Willsboro	State:	NY	Zip Code:	12996
Email:	sghelsby@gmail.com		Phone:	(518) 409-7096	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL											
Name:	Atlas F Missile Silo #4										
Address / Location:	92 Creative Way						County:	Essex			
City:	Willsboro				State:	NY		Zip Code:	12996		
Facility Location:	Latitude:	44 °	20 '	33.8 " N	& Longitude:	73 °	22 '	12.8 " W			
Primary Outfall No.:	001	Latitude:	44 °	20 '	33.8 " N	& Longitude:	73 °	22 '	12.8 " W		
Wastewater Description:	Pump-out Groundwater	Receiving Water:	Groundwater			NAICS:	999900	Class:	GA	Standard:	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 and 750-2.

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 Permit Coordinator (permit.coordinator@dec.ny.gov)
 BWP Permit Writer
 RWE
 RPA
 EPA Region II (Region2_NPDES@epa.gov)

Permit Administrator:		
Address:	625 Broadway Albany, NY 12233-1750	
Signature	Date	

DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
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.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
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 Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	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.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Pump-out Groundwater	Groundwater	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	20,000	GPD			Continuous	Estimate		X	1
pH	Daily Minimum	6.5	SU			Quarterly	Grab		X	2
	Daily Maximum	8.5	SU							
Total Phenols	Daily Maximum	2.0	µg/L			Quarterly	Grab		X	3
Chlordane	Daily Maximum	Monitor	µg/L			Annual	Grab		X	
Heptachlor Epoxide	Daily Maximum	Monitor	µg/L			Annual	Grab		X	
Toxaphene	Daily Maximum	Monitor	µg/L			Annual	Grab		X	

FOOTNOTES:

- Flow calculation may be obtained by estimate using pump run times and capacity or by using a meter or other flow measurement device. During any event that pump equipment is in full operation, the maximum flow value shall not exceed 20,000 GPD.
- Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
- Total phenols shall be determined by colorimetric or spectrophotometric analysis using the most sufficiently sensitive method approved under 40 CFR Part 136 for total recoverable phenols.

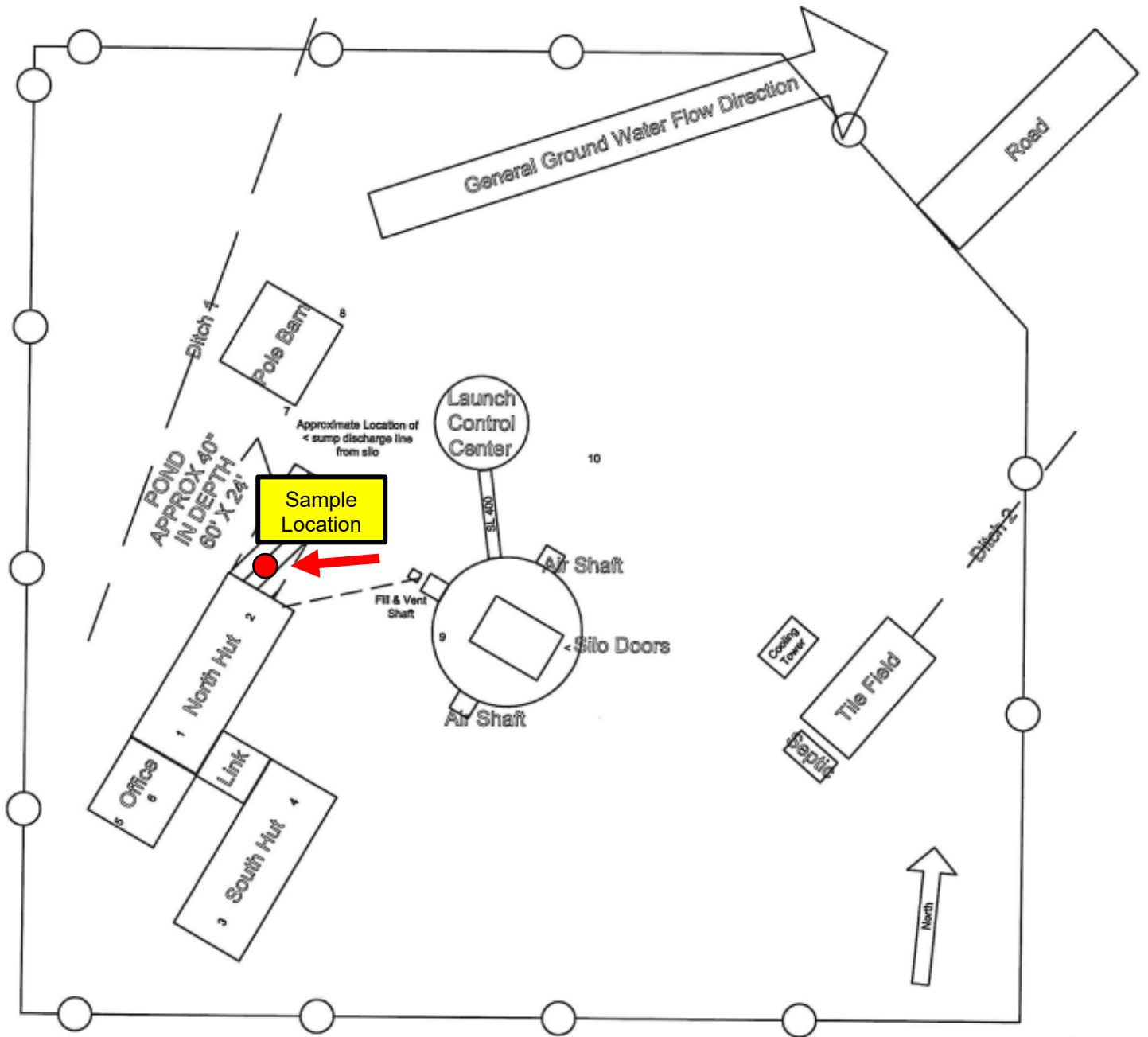
Special Conditions

- The permittee shall prevent releases of significant amounts of pollutants to the waters of the State through site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage.

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:

Effluent shall be sampled after all treatment units and before mixing with any other flow.



GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |
- C. Operation and Maintenance
- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |
- D. Monitoring and Records
- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |
- E. Reporting Requirements
- | | |
|---|-----------------------------------|
| 1. Reporting requirements for non-POTWs | 6 NYCRR 750-2.5, 2.6, 2.7, & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |
- F. Sludge Management
The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.
- G. SPDES Permit Program Fee
The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.
- H. Water Treatment Chemicals (WTCs)
New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department 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 SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized by the Department.
 2. The permittee shall 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 excessive levels of WTCs are not used.
 3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: <http://www.dec.ny.gov/permits/93245.html>

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. Additional information required to be submitted by this permit shall be summarized and reported to the Regional Water Engineer and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505 Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 5
232 Golf Course Road, Warrensburg, New York, 12885-1172 Phone: (518) 623-1200

- C. Annual SPDES Monitoring Reports: An annual report shall be submitted to the Department by February 1st each year. The report shall summarize information for January to December of the previous year and shall be submitted electronically, or in hardcopy format, utilizing the SPDES Annual Report Form available on the Department's website.

Hard copy submission of the Annual Report shall be submitted to the Regional Water Engineer at the address below:

Department of Environmental Conservation
Regional Water Engineer, Region 5
232 Golf Course Road, Warrensburg, New York, 12885-1172 Phone: (518) 623-1200

- D. 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.
- E. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- F. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- G. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 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 directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: Steven Helsby
Facility: Atlas F Missile Silo #4
SPDES Number: NY0256030
USEPA Non-Major/Class 04 Industrial

Date: October 27, 2023 v.1.17
Permit Writer: Ethan Sullivan
Water Quality Reviewer: Ethan Sullivan
Full Technical Review

SPDES Permit Fact Sheet

Steven Helsby

Atlas F Missile Silo #4

NY0256030



**Department of
Environmental
Conservation**

Summary of Permit

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the Atlas F Missile Silo #4. The permit conditions include the following:

- daily min and max effluent limitations for pH
- daily max effluent limitations for flow and total phenols
- annual monitoring requirements for chlordane, heptachlor epoxide, and toxaphene.

This factsheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this factsheet.

Administrative History

1/18/2023 Steven Helsby submitted a NY-2C permit application.

The Notice of Complete Application, published in the [Environmental Notice Bulletin](#) and newspapers, contains information on the public notice process.

Facility Information

This is a private facility that discharges pump-out groundwater and infiltrated rainwater from a decommissioned missile silo structure in Willsboro, NY. This facility has a pumping capacity of 20,000 GPD and provides treatment through a series of pleated sand filters and carbon filters. Sludge is not produced in this treatment process.

Site Overview



Existing Effluent Quality

The [Pollutant Summary Table](#) presents the *projected* effluent quality and effluent limitations based on sampling collected as part of the application. [Appendix Link](#)

Receiving Water Information

The facility proposes to discharge via the following outfall:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	9999	Pump-out Groundwater	Groundwater, Class GA

See the [Outfall Summary Table](#) and [Appendix](#) for additional information.

Critical Receiving Water

The facility discharges to groundwater, Class GA, via the primary outfall (Outfall 001), which is a 1" diameter pipe that discharges to a drainage swale. There are no nearby surface waterbodies. The effluent limitations for Outfall 001 were developed with no dilution, based on groundwater quality standards found in 6 NYCRR 703.5 and TOGS 1.1.1 (Part I) and groundwater effluent limitations contained in 6 NYCRR 703.6 and TOGS 1.1.1 (Part II).

Critical receiving water data are listed in the [Pollutant Summary Table](#) at the end of this fact sheet. [Appendix Link](#)

Permit Requirements

The technology based effluent limitations ([TBELs](#)), water quality-based effluent limitations ([WQBELs](#)), [Existing Effluent Quality](#) and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the [Pollutant Summary Table](#).

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)¹ determination. [Appendix Link](#)

Special Conditions

The permittee is required to maintain the facility to prevent any ponding or runoff of effluent offsite. Based on the observed site conditions, it is expected the permittee can meet these conditions at the proposed flow during summer months.

¹ As prescribed by 6 NYCRR Part 617

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OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	44° 20' 33.8" N	73° 22' 12.8" W	Groundwater	GA	-	10 / 04	-	-	-	-	0.02	-	-	-

POLLUTANT SUMMARY TABLE - Outfall 001

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Outfall #		001	Description of Wastewater: Pump-out Groundwater												
			Type of Treatment: Sand filter, carbon filter												
<p>General Notes: This is a new facility, and no discharge data is available. The "existing effluent quality" data was taken from sampling provided in the NY-2C application.</p>															
Flow Rate	GPD	Daily Max	-	-	-	20,000	Pump Capacity	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	TBEL
	The flow limit is set at the pump capacity.														
pH	SU	Minimum	-	8.4	1	-	-	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	-												
The discharge is to groundwater and has been given the water quality standard applicable under 703.3.															
Total Suspended Solids	mg/L	-	-	<1.0	1	-	-	-	-	-	-	-	703.2	-	No limitation or monitoring
Biochemical Oxygen Demand (BOD ₅)	mg/L	-	-	<2.4	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring

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Outfall #	001	Description of Wastewater: Pump-out Groundwater													
		Type of Treatment: Sand filter, carbon filter													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Chemical Oxygen Demand (COD)	mg/L	-	-	<10	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring
	No applicable groundwater standards exist for dissolved oxygen.														
Total Organic Carbon (TOC)	mg/L	-	-	1.9	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring
	No applicable groundwater standards exist for total organic carbon.														
Ammonia (as N)	mg/L	-	-	0.095	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring
	No groundwater effluent limitation exists for ammonia under 703.6. The groundwater water quality standard for ammonia under 703.5 is 2.0 mg/L.														
Temperature	°C	-	-	11	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring
	No groundwater water quality standards exist under 704.2.														
Total Mercury	ng/L	Daily Max	-	2.5	1	-	-	-	-	700	H(WS)	-	703.5	-	No limitation or monitoring
	This facility does not have an identified source of mercury. The groundwater effluent limitation under 703.6 is 1.4 ug/L (1,400 ng/L). Based on this and the groundwater water quality standard of 700 ug/L, no effluent limitation or monitoring is required.														
Antimony, Total	µg/L	-	-	<2.0	1	-	-	-	-	6.0	-	No reasonable potential	703.6	-	No limitation or monitoring
	The groundwater water quality standard for antimony under 703.5 is 3.0 µg/L. An initial sample for antimony was collected prior to filtration as part of the NY-2A application and was considered non-representative. Subsequent sampling was then collected after filtration which measured non-detect, indicating no reasonable potential to cause or contribute to a violation. Therefore, no WQBEL is specified.														
Arsenic, Total	µg/L	-	-	1.6	1	-	-	-	9.9	50	-	No reasonable potential	703.6	-	No limitation or monitoring
	The groundwater water quality standard for arsenic under 703.5 is 25 µg/L. The projected effluent concentration was calculated using the value of 1.6 and a multiplier of 6.2. The multiplier was recommended in EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected effluent concentration to the groundwater effluent limitation indicates no reasonable potential to cause or contribute to a violation. Therefore, no WQBEL is specified.														

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Outfall #	001	Description of Wastewater: Pump-out Groundwater													
		Type of Treatment: Sand filter, carbon filter													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Lead, Total	µg/L	-	-	8.0	1	-	-	-	49.6	50	-	No reasonable potential	703.6	-	No limitation or monitoring
The groundwater water quality standard for lead under 703.5 is 25 µg/L. The projected effluent concentration was calculated using the value of 8.0 and a multiplier of 6.2. The multiplier was recommended in EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected effluent concentration to the groundwater effluent limitation indicates no reasonable potential to cause or contribute to a violation. Therefore, no WQBEL is specified.															
Phenols, Total	µg/L	-	-	56	1	-	-	-	350	2.0	-	2.0	703.6	-	WQBEL
All other phenols sampled as part of the NY-2A application measured non-detect values. The projected effluent concentration was calculated using the value of 56 and a multiplier of 6.2. The multiplier was recommended in EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A comparison of the projected effluent concentration to the groundwater effluent limitation indicates reasonable potential to cause or contribute to a violation. Therefore, a WQBEL is specified.															
Chlordane	µg/L	-	-	<0.15	1	-	-	-	-	0.05	-	-	703.6	-	Monitor
Laboratory method 608.3 was used for sampling, which has a MDL of 0.014 µg/L. The NY-2C sample was reported as non-detect above the groundwater effluent limitation under 703.6. The groundwater water quality standard for chlordane under 703.5 is also 0.05 µg/L. Based on these results, it is unknown if a water quality concern could exist, and monitoring has been added to provide data for future reviews.															
Heptachlor Epoxide	µg/L	-	-	<0.25	1	-	-	-	-	0.03	-	-	703.6	-	Monitor
Laboratory method 608.3 was used for sampling, which has a MDL of 0.08 µg/L. The NY-2C sample was reported as a non-detect above the groundwater effluent limitation under 703.6. The groundwater water quality standard for heptachlor epoxide under 703.5 is also 0.03 µg/L. Based on these results, it is unknown if a water quality concern could exist, and monitoring has been added to provide data for future reviews.															
Toxaphene	µg/L	-	-	<0.72	1	-	-	-	-	0.06	-	-	703.6	-	Monitor
Laboratory method 608.3 was used for sampling, which has a MDL of 0.24 µg/L. The NY-2C sample was reported as a non-detect above the groundwater effluent limitation under 703.6. The groundwater water quality standard for toxaphene under 703.5 is also 0.06 µg/L. Based on these results, it is unknown if a water quality concern could exist and monitoring has been added to provide data for future reviews.															
Sulfate (as SO ₄)	mg/L	-	-	59	1	-	-	-	366	500	-	No reasonable potential	703.6	-	No limitation or monitoring
The groundwater water quality standard for sulfate under 703.5 is 250 µg/L. The projected influent concentration was calculated using the value of 59. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the groundwater effluent limitation indicates no reasonable potential to cause or contribute to a violation. Therefore, no WQBEL is specified.															
Boron, Total	µg/L	-	-	96	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring
A groundwater effluent limitation under 703.6 does not exist. The groundwater water quality standard under 703.5 is 1,000 µg/L.															
Alpha, Gross	pCi/L	-	-	-1.61+/- 0.871	1	-	-	-	-	-	-	-	-	-	No limitation or monitoring

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Outfall #	001	Description of Wastewater: Pump-out Groundwater														
		Type of Treatment: Sand filter, carbon filter														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
A groundwater effluent limitation under 703.6 does not exist. The groundwater water quality standard under 703.5 is 15 pCi/L (excluding radon and uranium).																
Beta, Gross	pCi/L	-	-	37.9+/-	1	-	-	-	-	-	-	-	-	-	-	No limitation or monitoring
				6.89												
A groundwater effluent limitation under 703.6 does not exist. The groundwater water quality standard under 703.5 is 1,000 pCi/L (excluding strontium-90 and alpha emitters).																
Radium 226	pCi/L	-	-	-	1	-	-	-	-	-	-	-	-	-	-	No limitation or monitoring
				0.165+/-												
A groundwater effluent limitation under 703.6 does not exist. The groundwater water quality standard under 703.5 is 3 pCi/L.																

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the factsheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

Regulatory References

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits. Below are the most common citations for the requirements included in SPDES permits:

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
 - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
 - 6 NYCRR Part 621
 - 6 NYCRR Part 750
 - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
 - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

Outfall and Receiving Water Information

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 95th (monthly average) and 99th (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may

be specified either through routine monitoring or a short-term high intensity monitoring program. The [Pollutant Summary Table](#) identifies the number of sample data points available.

Permit Requirements

Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law² and USEPA interpretation³ anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

Effluent Limitations

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs) for Industrial Facilities

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR 750-1.11 require technology-based controls on effluents. TBELs are set based upon an evaluation of New Source Performance Standards (NSPS), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and/or Best Professional Judgment (BPJ).

² American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

³ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

[USEPA Effluent Limitation Guidelines \(ELGs\) Applicable to Facility](#)

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries, as promulgated under 40 CFR Parts 405-471. Applicable guidelines, pollutants regulated by these guidelines, and the effluent limitation derivation for facilities subject to these guidelines is in the [USEPA Effluent Limitation Guideline Calculations Table](#).

[Best Professional Judgement \(BPJ\)](#)

For substances that are not explicitly limited by regulations, the permit writer is authorized to use BPJ in developing TBELs. Consistent with section 402(a)(1) of the CWA, and NYS ECL section 17-0811, the Department is authorized to issue a permit containing “any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law”. BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

[Technology-based Effluent Limitations \(TBELs\) for Industrial Facilities to Groundwater](#)

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. Requirements for discharges from industrial facilities to groundwater are summarized in TOGS 1.2.1. In accordance with TOGS 1.2.1, for facilities discharging to groundwater:

- Discharges will typically be limited to the more stringent of the groundwater effluent standards in 6 NYCRR 703.6 or the applicable treatment technology listed in TOGS 1.2.1 Attachment (C).
- Discharges from industrial facilities which contain nitrogen or nitrogen compounds include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent.

[Water Quality-Based Effluent Limitations \(WQBELs\) for Discharges to Groundwater](#)

The procedure for developing WQBELs includes identifying the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. For groundwater discharges, if the expected concentration of the pollutant of concern in the receiving water may exceed the ambient groundwater quality standard or guidance value, then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL for the pollutant is required.

WQBELs for groundwater discharges are based on the groundwater effluent limits set forth in 6 NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in 6 NYCRR 702.21. TOGS 1.1.1 provides a listing of groundwater effluent limitations for substances having an ambient water quality standard or guidance value. Groundwater effluent limitations are applied at the point of discharge to the groundwater distribution system.

For land treatment systems with no accessible final sampling points, such as constructed wetland treatment systems or buried sand filters, permit limitations for groundwater discharges are typically based on ambient groundwater quality standards or guidance values applied at representative down gradient monitoring well(s). Limitations at the downgradient sampling point are set at the Class GA ambient groundwater standards, rather than at the groundwater effluent limits promulgated under 6 NYCRR 703.6, as compliance is determined based upon the concentrations present in the downgradient groundwater monitoring well at the groundwater interface.

Permittee: Steven Helsby
Facility: Atlas F Missile Silo #4
SPDES Number: NY0256030
USEPA Non-Major/Class 04 Industrial

Date: October 27, 2023 v.1.17
Permit Writer: Ethan Sullivan
Water Quality Reviewer: Ethan Sullivan
Full Technical Review

Class GA standards are established for the protection of sources of drinking water designated as Health (Water Source) or H(WS) in TOGS 1.1.1. As such, effluent limitations based on aquatic life criteria and WET testing requirements are not applicable to groundwater discharges.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

For groundwater discharges, monitoring of downstream wells may be included to demonstrate compliance with ambient groundwater quality standards. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required.

Other Conditions

Schedule(s) of Additional Submittals

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.