2007.08.17 MLR + SPDES permit File

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, New York 12306-2014
Phone: (518) 357-2069 • **FAX:** (518) 357-2460
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

August 17, 2007

Tim Lachell
Norlite Corporation Inc.
628 South Saratoga Street
Cohoes, NY 12047

RE: DEC #4-0103-00016/00019
Norlite Corporation Mine
Cohoes (City), Albany County

Dear Mr. Lachell:

Enclosed please find the Mined Land Reclamation Permit and SPDES permits for the above referenced facility, as well as the SPDES Fact Sheet, and Response to Comments summary.

All work and operations are to be conducted in strict accordance with the permit and application documents/approved plans. Should you object to the permit as issued and are unable to resolve such objections with this office you may, within 30 calendar days of this transmittal, request a hearing in writing from the Regional Permit Administrator.

Please note the expiration date of the permit. Applications for the permit renewal must be made in advance of the expiration date. Please refer to your permit and/or 6NYCRR621 (Uniform Procedures) for specific instructions.

If you have any questions on the extent of the work authorized, or your obligations under the permit, please feel free to contact me.

Sincerely Yours,

William J. Clarke
Regional Permit Administrator
Region 4

cc: K. Young
Spectra Environmental Group, 19 British American Blvd, Latham, NY 12110
Minerals - Region 4
Division of Water - Region 4
File

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER
4-0103-00016/00019

FACILITY/PROGRAM NUMBER(S)
MLF #401-3-32-0002

PERMIT
Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE
July 10, 2003
8/17/07 Modification

EXPIRATION DATE(S)
June 30, 2008

TYPE OF PERMIT (Check All Appropriate Boxes)

☐ NEW ☐ RENEWAL ☒ MODIFICATION ☒ PERMIT TO CONSTRUCT ☒ PERMIT TO OPERATE

☐ ARTICLE 15, TITLE 5: PROTECTION OF WATER	☒ ARTICLE 17, TITLES 7, 8: SPDES	☐ ARTICLE 27, TITLE 9; 6NYCRR 373: HAZARDOUS WASTE MGMT.
☐ ARTICLE 15, TITLE 15: WATER SUPPLY	☐ ARTICLE 19: AIR POLLUTION CONTROL	☐ ARTICLE 34: COASTAL EROSION MANAGEMENT
☐ ARTICLE 15, TITLE 15: WATER TRANSPORT	☒ ARTICLE 23, TITLE 27: MINED LAND RECLAMATION	☐ ARTICLE 36: FLOODPLAIN MANAGEMENT
☐ ARTICLE 15, TITLE 15: LONG ISLAND WELLS	☐ ARTICLE 24: FRESHWATER WETLANDS	☐ ARTICLES 1, 3, 17, 19, 27, 37; 6NYCRR 380: RADIATION CONTROL
☐ ARTICLE 15, TITLE 27: WILD, SCENIC & RECREATIONAL RIVERS	☐ ARTICLE 25: TIDAL WETLANDS	☐ ARTICLE 27, TITLE 3, 6NYCRR 364: WASTE TRANSPORTER
☐ 6NYCRR 608: WATER QUALITY CERTIFICATION	☐ ARTICLE 27, TITLE 7: 6NYCRR 360: SOLID WASTE MANAGEMENT	☐ OTHER:

PERMIT ISSUED TO
Norlite Corporation

TELEPHONE NUMBER
(518) 235-0401

ADDRESS OF PERMITTEE
628 South Saratoga Street, Cohoes, NY 12047

CONTACT PERSON FOR PERMITTED WORK
Tim Lachell

TELEPHONE NUMBER

NAME AND ADDRESS OF PROJECT/FACILITY
Norlite Corp Mine

LOCATION OF PROJECT/FACILITY
Saratoga Street, Route 32

COUNTY	TOWN/CITY/VILLAGE	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Albany	Cohoes		E: 606.3 N: 4734.2

DESCRIPTION OF AUTHORIZED ACTIVITY:

Expansion of the Norlite life of mine area by 54 acres from the current 78 acres to a total of 132 acres. Expansion of the affected mine area is proposed for the southern section in order to construct an overburden storage area that will receive non rock soil material removed to uncover and allow the mining of rock reserves within the hard rock quarry area. This overburden disposal area will be operated during cold weather months from November through April of each year. A similar overburden storage area is located on the northern part of the mine. The rock quarry area is also to expand along the western boundary by some 400 feet to the property line increasing recoverable rock reserves. DEC Permits include a Mined Land Permit Modification (DEC# 4-0103-16/19, MLF#401-3-32-0002) and a SPDES Permit Modification (DEC#4-0103-16/20, SPDES #NY0004880).

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

REGIONAL PERMIT ADMINISTRATOR
William J. Clarke

ADDRESS NYS DEC, Region 4
1130 North Westcott Road, Schenectady, NY 12306

AUTHORIZED SIGNATURE
William J. Clarke

DATE
8/17/07

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

GENERAL CONDITIONS

1. Facility Inspection by the Department

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications for Permit Renewals or Modifications

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

The permittee must submit a renewal application at least:

a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and

b) 30 days before expiration of all other permit types.

Submission of applications for permit renewal or modification are to be submitted to:

NYSDEC Regional Permit Administrator, Region 4
1150 North Westcott Road, Schenectady, NY 12306
(for: Albany, Columbia, Greene, Rensselaer, Montgomery, & Schenectady Counties)

NYSDEC Deputy Regional Permit Administrator, Region 4
Stamford Field Office, Rte. 10, Stamford, NY 12167
(for: Delaware, Otsego, & Schoharie Counties)

4. Permit Modifications, Suspensions and Revocations by the Department

The Department reserves the right to modify, suspend or revoke this permit in accordance with 6 NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;
b) failure by the permittee to comply with any terms or conditions of the permit;
c) exceeding the scope of the project as described in the permit application;
d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

Additional General Conditions

FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

5. The permittee shall not deviate or depart from the approved mined land use plan without approval by the Department of an alteration or modification thereto.

6. If the permittee decides to discontinue operation, a termination notice must be filed 60 days prior to the scheduled temporary or permanent cessation of mining.

7 The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when notification is provided, be it written or verbal, at least 24 hours prior to such inspection.

8. If any archaeological or structural remains are encountered during excavation, the permittee must immediately cease, or cause to cease, all work in the area of the remains and notify the NYSDEC Regional Office. Work shall not resume until written permission to do so has been received from the Department.

9. Unless expressly provided for, the issuance of this permit does not apply to any structures contained on the plans or in the specifications, nor does this permit apply to safety aspects of the operation and/or reclamation plan.

10. All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or his agent as part of the permit application.

Special Conditions

FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

1. **Documents**

The permittee shall comply with the Order on Consent, file #R4-0768-90-01, executed on 6/21/90, and carry out all work and operations authorized under this permit in strict accordance with the following application documents/approved plans:

A. "Mined Land Use Plan Modification, Norlite Corporation Inc. Cohoes, New York" by Spectra Environmental Group, Inc. dated November 2004 and all enclosed Figures, Tables, Plates and Appendices.

B. "Notice of Incomplete Application Response, Norlite Corporation Inc. Cohoes, New York", by Spectra Environmental Group, Inc. dated July 2005 and all enclosed Figures, Tables, Plates and Appendices.

C. "Response to Notice of Incomplete Application, Norlite Corporation Inc. Cohoes, New York", by Spectra Environmental Group, Inc dated December 21, 2005.

D. Letter "Re: Norlite Rezoning" by Robert J. Sweeney dated January 22, 2007.

E. "Stormwater Pollution Prevention Plan and Best Management Practices Plan, Norlite Corporation", dated November 18, 2004, by Sterling Environmental Engineering, PC.

The following plans are provided for reference purposes and are effective only to the extent that the above documents do not modify them:

A. Mined Land-Use and Reclamation Plans prepared by Mark Zdunczyk of Dunn Geoscience (Map 8439), dated 7/17/89, as revised by Mark Zdunczyk of Greenbush Resources, Inc., as part of the mining renewal application, dated October 14, 1997;

B. The "Modification Application for Permit to Mine", dated August, 1992, including narrative, Mining Plan, Final Grade Profiles, and Mining Plan with Temporary Reclamation Area, all dated August 14, 1992;

C. Letter from Griggs-Lang Consulting Geologists, Inc., dated October 30, 2002, which serves as a mining narrative; and

D. Mine Plan Map prepared by Spectra Environmental Group, Inc., dated December 17, 2002, and subsequently revised on May 25, 2003.

Where the approved plans and conditions of this permit conflict, the permit conditions shall supercede the approved plans.

Special Conditions

FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

2. **Bond, Surety to Remain in Force**
Any required reclamation bond or other surety, in an amount determined by the department, shall be maintained in full force and effect. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the department in writing. Approval to use the expansion area is not effective until a revised mined land reclamation bond is received and accepted by the Department.

3. **Strip and Stockpile Soils for Reclamation**
Prior to the excavation of previously undisturbed areas, topsoil and overburden shall be stripped, stockpiled separately, and used for reclamation of mined areas. These stockpiles shall be seeded to establish a vegetative cover within 30 days, or as soon as practicable following their construction. The permittee shall locate all overburden stockpiles within the permitted area of the approved Life of Mine. Sufficient quantities of topsoil must be retained on the site for use in reclamation, unless prior approval is granted by the Department.

4. **Maintenance of Area Markers for Permit Term**
The permittee shall provide permanent markers such as stakes, posts or other devices acceptable to the Department to identify and delineate the permit area, as outlined on the approved Mining Plan Map. These markers are to be installed prior to the start of mining and shall be maintained for the duration of the permit term.

5. **Hours**
The hours of operation within the mining affected area (application documents in Special Condition 1) shall be limited to 6:00 AM to 9:00 PM Monday through Saturday. There shall be no operations (including but not limited to the startup or operation of motorized equipment, trucks and/or mining equipment) within the mining affected area on Sundays and the following holidays: New Years Day, Memorial Day, July 4, Labor Day, Thanksgiving Day and Christmas Day. In addition, as stated in the application documents (Special Condition 1) after placement of the initial berm over an estimated six month period, the operation of the southern overburden storage area shall be limited to November to April between the hours of 7 AM to 6 PM Monday through Friday and Saturday 7 AM to 4 PM.

6. **Dust/Tracking**
Dust generated by mining activities and haul road use shall be controlled by water spray as often as needed to suppress dust. All paved surfaces shall be swept as often as necessary. The permittee shall prevent visible dust from leaving the mine property and implement and maintain conformance with its Fugitive Dust Plan/Best Management Practices Plan. Chemical treatments shall not be used for dust control.

Special Conditions

FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

7. **Water**
No turbid waters or sediment shall be discharged to any stream, wetland, offsite drainageway, or the offsite areas. All discharged waters shall be clear and free of turbidity. There shall be no natural swales or channels or constructed features such as ditches, pipes, etc., capable of discharging waters to any offsite areas or to any areas outside the limits of the Life of Mine except those explicitly described and shown in the approved Mined Land Use Plan, SPDES permit and Stormwater Pollution Prevention Plan. The permittee must comply with all applicable State Pollutant Discharge Elimination System (SPDES) permit requirements and provide necessary notifications for off-site point source discharges.

8. **Fueling of Equipment and Reporting of Spills**
Fueling of equipment shall be controlled to prevent spillage. Any spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the Department's Spill Hotline number (1-800-457-7362) within 2 hours. The permittee shall retain the Department's Spill Response number for immediate access in the permittee's office and at the mine site.

9. **Noise/Visual**
Any increase in ambient noise levels shall be at or below the 5 dba level as projected in the noise analysis in the application documents (Special Condition 1 especially 1.A, Appendix B, Table 2 "Difference from Ambient" and Section 5.0 "Conclusions"). All berms, buffer areas and vegetated areas shall be implemented as specified in the application documents (Special Condition 1).

10. **Revegetation**
Revegetation will be conducted according to specifications set forth in Norlite's March, 1993, narrative submission under item 4.0 "Revegetation".

11. **Waste**
There shall be no disposal in the mine of any material regulated under 6NYCRR360 as solid waste.

12. **Importation**
Except as provided in the application documents/approved plans (Special Condition 1) materials originating from outside the mine may not be imported into the mine without Department approval.

Special Conditions

FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

13. **Blasting Conditions**

a) Blasting is only to occur between the hours of 9:00 AM and 4:00 PM, Monday through Friday, excluding federal holidays.

b) Blasting shall be conducted in a manner that will prevent injury to any person and damage to public or private property outside the life of mine. In the event that an off-site property owner makes a claim of structural damage due to a blasting event or mining activities, the permitee shall immediately notify the Department, investigate the loss claim with the property owner, and provide the Department with a written report within 7 days of the complaint.

c) There shall be no flyrock beyond the life of mine boundary. Should there be any incidents of flyrock beyond the life of mine, all blasting shall cease, and the Department (Region 4 Mined Land Reclamation Specialist) shall be notified within 24 hours of the blast. Blasting shall resume only upon written approval from the Department.

d) All blasting shall be undertaken, monitored and recorded by a blaster licensed by the New York State Department of Labor. The permittee shall maintain copies of all blasting records. Such records shall be made available to the Department upon request.

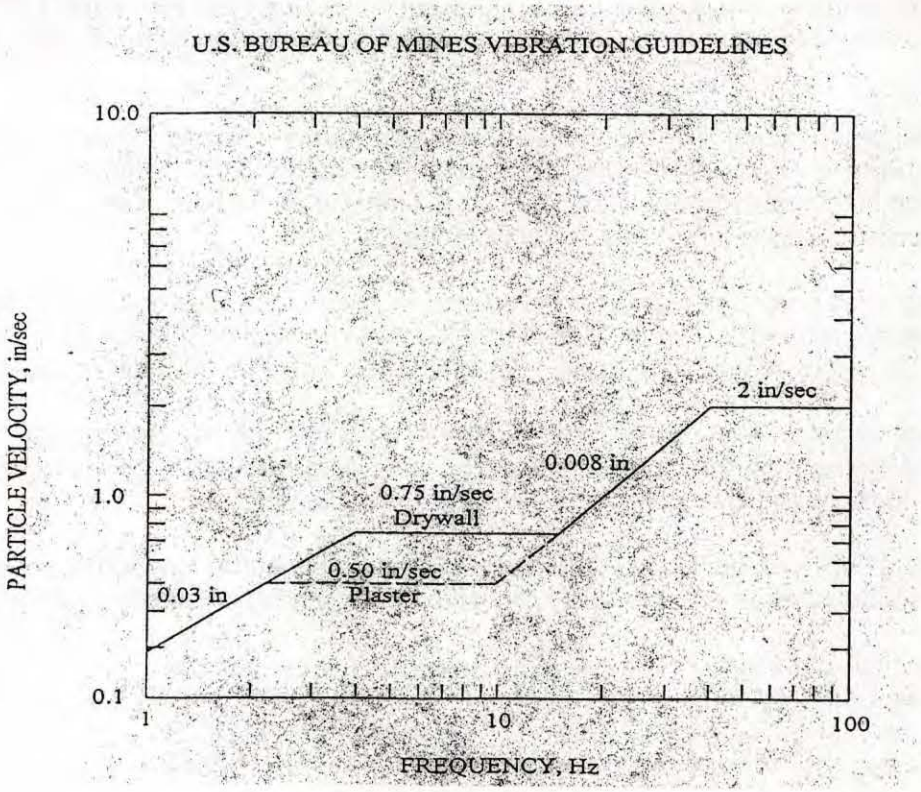
e) All blasts shall be monitored by properly calibrated seismographs. Seismographs shall be installed at the nearest off-site residential receptor and any locations identified within the approved Mined Land Use Plan or as directed by the Department.

f) Air blast shall not exceed the maximum limits listed below at the location of any dwelling, public building, school, church or community or institutional building outside the permit area.

0.1 Hz high-pass system----------134 dB
2 Hz high-pass system----------133 dB
5 or 6 Hz high-pass system----------129 dB
c-slow (events not exceeding 2 sec. duration) ----------105 dB

Special Conditions
FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

g). Blasting shall be controlled so that ground vibrations (Peak Particle Velocity) shall not exceed the limits of the Variable Particle vs. Frequency Limits recommended by the U.S. Bureau of Mines Report - 8507 (November 1980). Maximum peak particle velocity shall not exceed these limits at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area. If measurements are made at other than the nearest residential structure, the measurement shall be interpreted in accordance with U.S. Bureau of Mines Report - 8507.



14. Storage of explosives on site shall conform to State of New York, Department of Labor Industrial Code Rule 39, found at 12 NYCRR 39:
    Part 39.6 General Provisions for the Storage and Handling of Explosives
    Part 39.8 Construction and Maintenance of Magazines
    Part 39.9 Location of Magazines

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

Form3.98

Industrial Code:	**1422/4953**	SPDES Number:	**NY- 000 4880**
Discharge Class (CL):	**01**	DEC Number:	**4-0103-16/20-0**
Toxic Class (TX):	**T**	Effective Date (EDP)	**February 1, 2007**
Major Drainage Basin:	**12**	Expiration Date (ExDP)	**January 31, 2012**
Sub Drainage Basin:	**01**	Modification Dates: (EDPM)	**08/17/07**
Water Index Number:	**H-240**		
Compact Area:			

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: **Norlite Corporation** Attention: **William Morris**

Street: **628 South Saratoga Street**

City: **Cohoes** State: **NY** Zip Code: **12047**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **Norlite Corporation**

Location (C,T,V): **Cohoes (C)** County: **Albany**

Facility Address: **628 South Saratoga Street**

City: **Cohoes** State: **NY** Zip Code: **12047**

NYTM -E: NYTM - N:

From Outfall No.: **003** at Latitude: **42 ° 45 ′ 14 ″** & Longitude: **73 ° 40 ′ 20 ″**

into receiving waters known as: **Salt Kill Creek (H-239)** Class: **D**

and; (list other Outfalls, Receiving Waters & Water Classifications)

004	**Salt Kill Creek**	**H-239**	**D**
006	**Mohawk River**	**H-240**	**C**
007	**Salt Kill Creek**	**H-239**	**D**
008	**Salt Kill Creek**	**H-239**	**D**
009	**Salt Kill Creek**	**H-239**	**D**

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: **Norlite Corporation**

Street: **628 South Saratoga Street**

City: **Cohoes** State: **NY** Zip Code: **12047**

Responsible Official or Agent: **William Morris** Phone: **(518) 235-0401**

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:

CO BWP - Permit Coordinator
RWE
RPA
EPA Region II - Jeffrey Gratz
EFC

Permit Administrator: William J. Clarke

Address: 1130 North Westcott Road
Schenectady, New York 12306

Signature: William J. Clarke Date: 8/17/07

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Quarry Water	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	2

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Daily	Instantaneous	2
Mercury, Total	Monitor	30			ng/l	Semi annually	Grab	17
Solids, Settelable	Monitor	0.1			ml/l	Weekly	Grab	1
Solids, Total Dissolved	Monitor	Monitor			mg/l	Weekly	Grab	1
Solids, Total Suspended	25	45			mg/l	Weekly	Grab	1

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
004	Shale Fines Leachate and Storm Runoff from Landfill Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	2

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Daily	Instantaneous	2
Solids, Total Suspended	25	45			mg/l	Daily	Grab	2
Temperature	Monitor	90			^{o}F	Daily	Grab	2
Cadmium, Total	Monitor	0.004			mg/l	Daily	Grab	2
Chromium, Total	Monitor	1.7			mg/l	Daily	Grab	2
Chromium, Hexavalent	Monitor	0.016			mg/l	Daily	Grab	2
Copper, Total	Monitor	0.018			mg/l	Daily	Grab	2
Lead, Total	Monitor	0.08			mg/l	Daily	Grab	2
Mercury, Total	Monitor	30			ng/l	Daily	Grab	2, 17
Nickel, Total	Monitor	0.61			mg/l	Daily	Grab	2
Zinc, Total	Monitor	0.3			mg/l	Daily	Grab	2

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
06A	Treated Scrubber Blowdown, Boiler Blowdown and Trunnion Non Contact Cooling Water	Outfall 006	08/17/07	01/31/12

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Continuous	Recorded	7
Arsenic, Total	Monitor	0.11			lbs/day	Daily	Grab	2, 10
Barium, Total	Monitor	2.88			lbs/day	Daily	Grab	2, 10
Beryllium, Total	Monitor	1.44			lbs/day	Daily	Grab	2, 10
Cadmium, Total	Monitor	0.04			lbs/day	Daily	Grab	2, 10
Chromium, Total	Monitor	0.14			lbs/day	Daily	Grab	2, 10
Copper, Total	Monitor	0.66			lbs/day	Daily	Grab	2, 10
Iron, Total	Monitor	2.88			lbs/day	Daily	Grab	2, 10
Lead, Total	Monitor	0.43			lbs/day	Daily	Grab	2, 10
Mercury, Total	Monitor	30			ng/l	Daily	Grab	2, 17
Nickel, Total	Monitor	0.94			lbs/day	Daily	Grab	2, 10
Selenium, Total	Monitor	0.07			lbs/day	Daily	Grab	2, 10
Zinc, Total	Monitor	0.66			lbs/day	Daily	Grab	2, 10

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
06B	Trunnion Non Contact Cooling Water	Outfall 006	08/17/07	01/31/12

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Continuous	Recorded	7
Flow, Totalized	NA	Monitor			gpd		Recorded	8

C:\MYFILES\Other\Norlite SPDES permit.wpd

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
006	Trunnion Non Contact Cooling Water, Treated Scrubber Blowdown, Boiler Blowdown, and Plant Water[6]	Mohawk River	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	2

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Continuous	Recorded	
Solids, Total Suspended	Monitor	66			lbs/day	Daily	Grab	2, 10
Solids, Total Dissolved	Monitor	Monitor			g/l	Weekly	Grab	1
Chlorine, Total Residual	Monitor	Monitor			mg/l		Grab	5
Temperature	Monitor	115			^{o}F	Daily	Grab	2, 4
Ammonia (as NH_3)	Monitor	Monitor			mg/l	Monthly	Grab	
Chlorides	Monitor	Monitor			mg/l	Monthly	Grab	

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
007	Storm Runoff from Production Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Monthly	Grab	1

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Daily	Estimate	2
Solids, Total Suspended	25	45			mg/l	Daily	Grab	2, 9
Solids, Settleable	Monitor	0.1			ml/l	Daily	Grab	2, 9
Oil & Grease	Monitor	15			mg/l	Daily	Grab	2,

PERMIT LIMITS, LEVELS AND MONITORING

C:\MYFILES\Other\Norlite SPDES permit.wpd

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
008	Storm Runoff from Tanker Truck Staging Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Each Batch Discharge	Grab	

PARAMETER	EFFLUENT LIMIT		PQL	MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor				gpd	Each Batch	Total	19
Acenaphthene	Monitor	10				µg/l	Each Batch	Grab	
Acenaphthylene	Monitor	10				µg/l	Each Batch	Grab	
Acentonitrile	Monitor	50				µg/l	Each Batch	Grab	
Acetone	Monitor	10				µg/l	Each Batch	Grab	
Acetopenone	Monitor	10				µg/l	Each Batch	Grab	
Acrylonitrile	Monitor	100				µg/l	Each Batch	Grab	
Anthracene	Monitor	10				µg/l	Each Batch	Grab	
Antimony, Total	Monitor	100				µg/l	Each Batch	Grab	
Benzene	Monitor	5				µg/l	Each Batch	Grab	
Benzidine	Monitor	0.1	0.3			µg/l	Each Batch	Grab	11
Benzo(a)pyrene	Monitor	0.0012	0.09			µg/l	Each Batch	Grab	12
Benzo(ghi)pyrene	Monitor	10				µg/l	Each Batch	Grab	
Benzo(k)fluoranthene	Monitor	10				µg/l	Each Batch	Grab	
Bromoform	Monitor	50				µg/l	Each Batch	Grab	
Butylbenzyl phthlate	Monitor	10				µg/l	Each Batch	Grab	
Carbon Disulfide	Monitor	10				µg/l	Each Batch	Grab	
Carbon Tetrachloride	Monitor	10				µg/l	Each Batch	Grab	
Chlordane	Monitor	0.00002	0.06			µg/l	Each Batch	Grab	13
Chlorobenzene	Monitor	25				µg/l	Each Batch	Grab	
bis (2Chloroethyl)ether	Monitor	10				µg/l	Each Batch	Grab	
Chloroform	Monitor	100				µg/l	Each Batch	Grab	
2 - Chlorophenol	Monitor	10				µg/l	Each Batch	Grab	
m - Cresol	Monitor	50				µg/l	Each Batch	Grab	
o - Cresol	Monitor	50				µg/l	Each Batch	Grab	
Chrysene	Monitor	10				µg/l	Each Batch	Grab	
Dibenzo(ah)anthracene	Monitor	10				µg/l	Each Batch	Grab	

PERMIT LIMITS, LEVELS AND MONITORING

C:\MYFILES\Other\Norlite SPDES permit.wpd

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
008, Continued	Storm Runoff from Tanker Truck Staging Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	EFFLUENT LIMIT		PQL	MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	Daily Max.	TYPE I	TYPE II				
Dibenzofuran	Monitor	10				µg/l	Each Batch	Grab	
Dichlorobenzenes, Sum of	Monitor	5				µg/l	Each Batch	Grab	18
3,3 - Dichlorobenzidine	Monitor	20				µg/l	Each Batch	Grab	
2,4 - Dichlorophenol	Monitor	1				µg/l	Each Batch	Grab	
2,6 - Dichlorophenol	Monitor	10				µg/l	Each Batch	Grab	
2,4 - Dimethylphenol	Monitor	5				µg/l	Each Batch	Grab	
Dimethylphthlate	Monitor	25				µg/l	Each Batch	Grab	
Di -n - octylphlate	Monitor	10				µg/l	Each Batch	Grab	
Dinoseb	Monitor	5				µg/l	Each Batch	Grab	
Ethyl Methraclate	Monitor	20				µg/l	Each Batch	Grab	
Ethylbenzene	Monitor	50				µg/l	Each Batch	Grab	
Fluoranthene	Monitor	10				µg/l	Each Batch	Grab	
Fluorene	Monitor	4.8				µg/l	Each Batch	Grab	
Heptachlor	Monitor	0.0002	0.01			µg/l	Each Batch	Grab	13
Hexachlorobenzene	Monitor	0.00005	0.2			µg/l	Each Batch	Grab	14
Hexachlorobutadiene	Monitor	0.01	1			µg/l	Each Batch	Grab	14
Hexacholroethane	Monitor	0.6				µg/l	Each Batch	Grab	14
Isobutanol	Monitor	50				µg/l	Each Batch	Grab	
Isophorone	Monitor	50				µg/l	Each Batch	Grab	
Mercury, Total	Monitor	30				ng/l	Each Batch	Grab	17
Methacrylonite	Monitor	50				µg/l	Each Batch	Grab	
Methoxchlor	Monitor	50				µg/l	Each Batch	Grab	
Methyl Methacrylate	Monitor	50				µg/l	Each Batch	Grab	
Naphthalene	Monitor	10				µg/l	Each Batch	Grab	
1 - Naphthylamine	Monitor	10				µg/l	Each Batch	Grab	
Nitrobenzene	Monitor	50				µg/l	Each Batch	Grab	

PERMIT LIMITS, LEVELS AND MONITORING

C:\MYFILES\Other\Norlite SPDES permit.wpd

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
008, Continued	Strom Runoff from Tanker Truck Staging Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	EFFLUENT LIMIT		PQL	MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	Daily Max.	TYPE I	TYPE II				
PCBs , Total	NA	0.001				ng/l		Grab	15
Aroclor 1016	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1221	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1232	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1242	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1248	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1254	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Aroclor 1260	Monitor	see PCBs	300			ng/l	Each Batch	Grab	16
Pentacholorphenol	Monitor	5				µg/l	Each Batch	Grab	
Phenanthrene	Monitor	10				µg/l	Each Batch	Grab	
Phenol	Monitor	5				µg/l	Each Batch	Grab	
Propionitrile	Monitor	50				µg/l	Each Batch	Grab	
Pyrene	Monitor	10				µg/l	Each Batch	Grab	
Styrene	Monitor	10				µg/l	Each Batch	Grab	
Tetracholoroethylene	Monitor	1				µg/l	Each Batch	Grab	
Toluene	Monitor	5				µg/l	Each Batch	Grab	
o - Toluidine	Monitor	50				µg/l	Each Batch	Grab	
1,1,1 - Trichloroethane	Monitor	10				µg/l	Each Batch	Grab	
1,1,2 - Trichloroethane	Monitor	10				µg/l	Each Batch	Grab	
Trichloroethylene	Monitor	10				µg/l	Each Batch	Grab	
2,4,5 - Trichlorophenol	Monitor	5	10			µg/l	Each Batch	Grab	
2,4,6 - Trichlorophenol	Monitor	5				µg/l	Each Batch	Grab	
Tricholrotrifluoroethane	Monitor	10				µg/l	Each Batch	Grab	
p - Xylene	Monitor	5				µg/l	Each Batch	Grab	

C:\MYFILES\Other\Norlite SPDES permit.wpd

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
009	Storm Runoff from Advanced Liquid Recycling Area	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	2

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			gpd	Daily	Instantaneous	2
Glycols	Monitor	Monitor			mg/l	Daily	Grab	2, 20
Oil & Grease	Monitor	15			mg/l	Daily	Grab	2
Solids, Total Suspended	25	45			mg/l	Daily	Grab	2

OUTFALL No.	RECEIVING WATER	EFFECTIVE	EXPIRING
Sum of 003, 004, and 008	Salt Kill Creek	08/17/07	01/31/12

PARAMETER	ENFORCEABLE LIMIT		WET MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		gpd	Quarterly	Calculated	21
WET - Acute Invertebrate	-	-	0.3	TUa	Quarterly	24hr comp/renewal	22
WET - Acute Vertebrate	-	-	0.3	TUa	Quarterly	24hr Comp/renewal	22

PERMIT LIMITS, LEVELS, AND MONITORING - FOOTNOTES

FOOTNOTE:

1. Samples shall be taken one day per week while discharging.

2. Samples shall be taken each day a discharge occurs.

3. Representative composites shall consist of a minimum of three samples taken at the beginning, middle and end of the day.

4. This temperature limit shall apply at the final discharge point from the wastewater treatment plant. A temperature of 90 ^{O}F shall apply at the final discharge point of Norlite's property, prior to the Mohawk River. Sampling at the final discharge point shall consist of a quarterly grab.

5. Grab samples shall be collected following the addition of sodium hypochlorite for hydrogen sulfide control. Analysis shall be by the DPD colormetric method (equivalent to EPA Method 330.5). The addition of sodium hypochlorite shall be made whenever the ORP reading is unstable or falling below +100 toward zero or negative.

6. Plant Water shall be defined as that treated Quarry Water that is discharged through Outfall 006, to aid in the control of the temperature of the entire outfall.

7. The instantaneous flow shall be recorded in the operator's logbook any time a discharge of Trunnion Non Contact Cooling Water occurs through Outfall 06B simultaneous to a sample of Outfall 06A being taken. A summary of the relative flow rates for outfalls 06A and 06B, both instantaneous and totalized, shall be recorded and submitted with the Discharge Monitoring Report.

8. In the event of any discharge of Trunnion Non Contact Cooling Water to the overflow collections tanks, the start and end times, and totalized flow shall be recorded in the operator's logbook.

9. Limits for these parameters shall be "Monitoring Only" until 2 years from the Effective Date of Modification to this permit. Thereafter, the effluent limits noted shall apply.

10. Loadings shall be calculated using the totalized flow at the sampling location for each day on which sampling occurs.

11. Analysis shall be by EPA Method 605.

12. Analysis shall be by EPA Method 610.

13. Analysis shall be by EPA Method 608.

14. Analysis shall be by EPA Method 612.

15. The 0.000001 ng/l effluent limit for Total PCBs is the calculated water quality based effluent limit. For permit compliance purposes, Total PCBs are indicated by Aroclor limits. Monitoring and reporting of Total PCBs is specified on the PCB Pollutant Minimization Program, page 16 of 20.

16. Analysis shall be by EPA Method 608. Grams/day shall also be reported on the Discharge Monitoring Report. Refer also to the requirements on the PCB Pollutant Minimization Program, page 16 of 20.

17. Analysis shall be by EPA Method 1631. Grams/day shall also be reported on the Discharge Monitoring Report. Refer also to the requirements on the Mercury Pollutant Minimization Program, page 17 of 20.

18. The sum of 1, 2 - Dichlorobenzene, 1, 3 - Dichlorobenzene, and 1, 4 - Dichlorobenzene shall be 5 µg/l or less. Analysis shall be by EPA Method 601 or 602.

PERMIT LIMITS, LEVELS, AND MONITORING - FOOTNOTES, CONTINUED

FOOTNOTE:

19. No discharge is authorized from this outfall until a viable wastewater treatment facility has been constructed in accordance with engineering reports, plans and specifications approved by the Department, and has been inspected by the Department for compliance with those approved engineering documents.

20. Analytical test for Glycols shall have a minimum detection of 50 micrograms per liter (µg/l).

21. Samples collected from the specified outfalls shall be flow weighted for analysis.

22. **Whole Effluent Toxicity Testing (WET) Requirements** - Quarterly analysis shall be conducted during the years ending with an 8 or 3. The analyses shall be performed on a combined sample of the designated outfalls. Such sample shall be collected on a flow weighted basis. Every effort shall be made to collect the samples when there is a discharge from all the outfalls noted, but the absence of a discharge from any outfall(s) shall not constitute a cause for relief from the WET requirements. Testing shall be performed in accordance with 40 CFR, Part 136, and TOGS 1.3.2, unless prior written approval of an alternate method has been obtained from the Department. The test species shall be Ceriodaphnia dubia (invertebrate), and Pimephales promelas (vertebrate). All tests conducted shall be static - renewal (1 renewal for Acute Tests), using the appropriate dilution series bracketing the IWC and generating a definitive test end point, otherwise an immediate rerun is required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited in this permit so that the resulting analyses are also representative of the sample used for WET testing. The dilution factor for Salt Kill Creek is zero (0).

Reporting - Toxicity Units shall be calculated and reported on the discharge Monitoring Reports as follows: TUacute = 100/48hr LC50 or 100/48hr EC50, where the 48hr LC50 or 48hr EC50 are expressed in % effluent. Report a TUacute of 0.3 if the sample shows no statistically significant difference in mortality from control. Additionally, a summary page of the test results for the invertebrate and vertebrate species indicating TUacute, 48hr LC50 or 48hr EC50 for Acute Tests shall also be included at the beginning of the report. 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, Bureau of Water Assessment & Management, 625 Broadway, Albany, New York 12233.

WET Testing Action Level Exceedances - If an action level is exceeded, the Department may require the permittee to conduct additional WET acute tests. Additionally, the permittee may be required to perform a Toxicity Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is required, the permittee shall be notified in writing by the Region 4 Water Engineer, 1130 North Westcott Road, Schenectady, New York 12306. The written notification shall include the reason(s) why additional testing or a TRE is required.

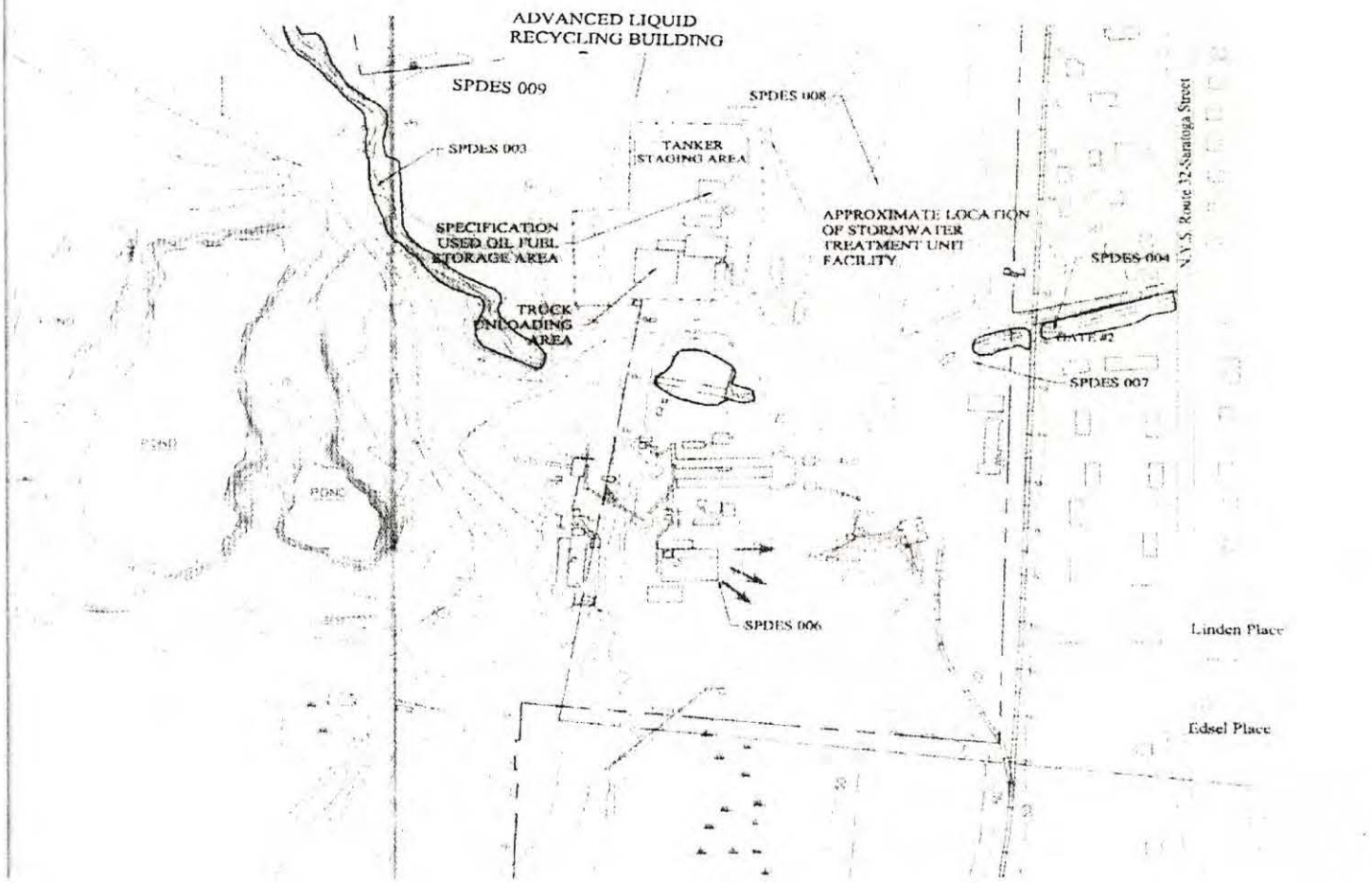
C:\MYFILES\Other\Norlite SPDES permit.wpd

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:

SPDES OUTFALLS

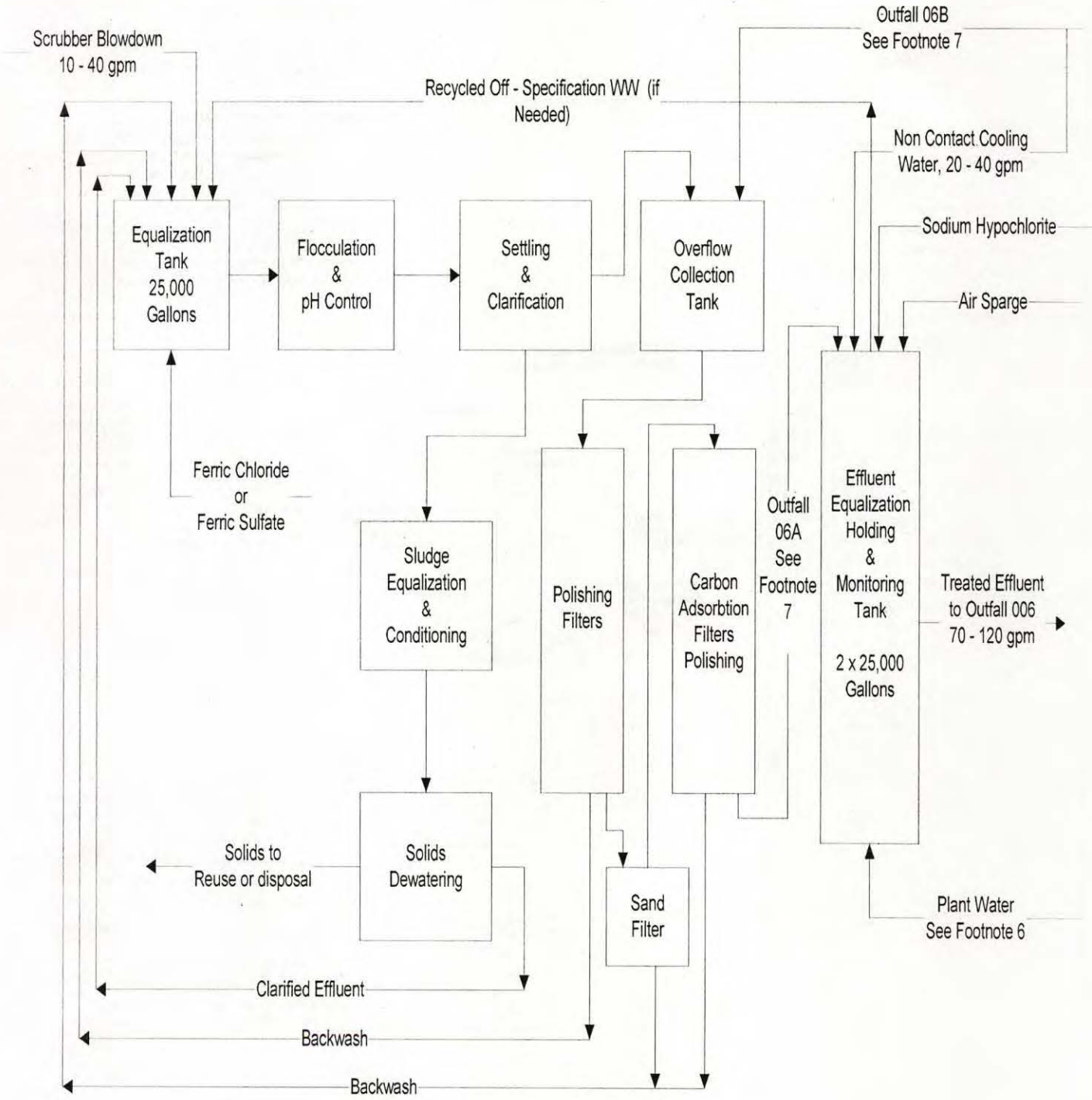
003 QUARRY WATER
004 SHALE FINES & STORM RUNOFF FROM LANDFILL AREA
006 TRUNNION NON CONTACT COOLING WATER, SCRUBBER BLOWDOWN, BOILER BLOWDOWN, AND PLANT WATER
007 STORM RUNOFF FROM PRODUCTION AREA
008 STORM RUNOFF FROM TANKER TRUCK STAGING AREA
009 STORM RUNOFF FROM ADVANCED LIQUID RECYCLING AREA



C:\MYFILES\Other\Norlite SPDES permit wpd

MONITORING LOCATIONS, CONTINUED
WASTEWATER TREATMENT PLANT GENERAL PROCESS FLOW DIAGRAM

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



SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage.

   The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and 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. A copy of the current BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.

2. **Compliance Deadlines** - An **UPDATED** completed BMP plan shall be submitted **WITHIN SIX MONTHS OF THE EFFECTIVE DATE OF MODIFICATION TO THIS PERMIT** to the Region 4 Water Engineer, 1130 North Westcott Road Schenectady, New York 12306. The BMP plan shall be implemented within 6 months of submission, unless a different time frame is approved by the Department. The BMP plan shall be reviewed annually and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions (with the exception of SWPPPs - see item (4.B.) below) must be submitted to the Regional Water Engineer within 30 days. Note that the permittee is not required to obtain Department approval of the BMP plan (or of any SWPPPs) unless notified otherwise. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.

3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to 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 materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of 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. 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 identified in Tables 6-10 of SPDES application Form NY-2C (available at *http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf*) or that are required to be monitored for by the SPDES permit.

4. A. **13 Minimum BMPs** - Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in the September 1992 manual *Storm Water Management for Industrial Activities,* EPA 832-R-92-006 (available from NTIS, 703-487-4650, order # PB 92235969). As a minimum, the plan shall include the following BMPs:

   1. BMP Pollution Prevention Team
   2. Reporting of BMP Incidents
   3. Risk Identification & Assessment
   4. Employee Training
   5. Inspections and Records
   6. Security
   7. Preventive Maintenance
   8. Good Housekeeping
   9. Materials/Waste Handling, Storage, & Compatibility
   10. Spill Prevention & Response
   11. Erosion & Sediment Control
   12. Management of Runoff
   13. Street Sweeping

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES, CONTINUED

B. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters** - As part of BMP #11, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 of SPDES application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters.

The SWPPP shall conform to the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual,* unless a variance has been obtained from the Regional Water Engineer, and to any local requirements. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at *www.dec.state.ny.us/website/dow/toolbox/swforms.html*) prior to soil disturbance. Note that submission of a NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges, nor are any additional permit fees incurred. SWPPPs must be developed and submitted for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP is properly implemented.

NOTE: This paragraph shall apply to all activities (such as the construction of new buildings, parking areas,roadways, the southern overburden storage area, etc.) that are not part of the routine mining or industrial activities at the site. Those routine activities are addressed elsewhere in this requirement.

5. **Required Sampling For "Hot Spot" Identification** - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "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 stormwater 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 whichis 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. **Facilities with Petroleum and/or Chemical Bulk Storage (PBS and CBS) Areas** - Compliance must be maintained with all applicable regulations including those involving releases, registration, handling and storage (6NYCRR 595-599 and 612-614). Stormwater discharges from handling and storage areas should be eliminated where practical.

A. Spill Cleanup - All spilled or leaked substances must be removed from secondary containment systems as soon as practical and for CBS storage areas within 24 hours, unless written authorization is received from the Department. The containment system must be thoroughly cleaned to remove any residual contamination which could cause contamination of stormwater and the resulting discharge of pollutants to waters of the State. Following spill cleanup the affected area must be completely flushed with clean water three times and the water removed after each flushing for proper disposal in an on-site or off-site wastewater treatment plant designed to treat such water and permitted to discharge such wastewater. Alternately, the permittee may test the first batch of stormwater following the spill cleanup to determine discharge acceptability. If the water contains no pollutants it may be discharged. Otherwise it must be disposed of as noted above. See *Discharge Monitoring* below for the list of parameters to be sampled for.

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES, CONTINUED

B. Discharge Operation - Stormwater must be removed before it compromises the required containment system capacity. Each discharge may only proceed with the prior approval of the permittee staff person responsible for ensuring SPDES permit compliance. Bulk storage secondary containment drainage systems must be locked in a closed position except when the operator is in the process of draining accumulated stormwater. Transfer area secondary containment drainage systems must be locked in a closed position during all transfers and must not be reopened unless the transfer area is clean of contaminants. Stormwater discharges from secondary containment systems should be avoided during periods of precipitation. A logbook shall be maintained on site noting the date, time and personnel supervising each discharge.

C. Discharge Screening - Prior to each discharge from a secondary containment system the stormwater must be screened for contamination*. All stormwater must be inspected for visible evidence of contamination. Additional screening methods shall be developed by the permittee as part of the overall BMP Plan, e.g. the use of volatile gas meters to detect the presence of gross levels of gasoline or volatile organic compounds. If the screening indicates contamination, the permittee must collect and analyze a representative sample** of the stormwater. If the water contains no pollutants it may be discharged. Otherwise it must either be disposed of in an on site or off site wastewater treatment plant designed to treat and permitted to discharge such wastewater or the Regional Water Engineer can be contacted to determine if it may be discharged without treatment.

D. Discharge Monitoring - Unless the discharge from any bulk storage containment system outlet is identified in the SPDES permit as an outfall with explicit effluent and monitoring requirements, the permittee shall monitor the outlet as follows:

(i) *Bulk Storage Secondary Containment Systems:*

(a) The volume of each discharge from each outlet must be monitored. Discharge volume may be calculated by measuring the depth of water within the containment area times the wetted area converted to gallons or by other suitable methods. A representative sample shall be collected of the first discharge* following any cleaned up spill or leak. The sample must be analyzed for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present**.

(b) Every fourth discharge* from each outlet must be sampled for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present**.

(ii) *Transfer Area Secondary Containment Systems:*

The first discharge* following any spill or leak must be sampled for flow, pH, the substance(s) transferred in that area and any other pollutants the permittee knows or has reason to believe are present**.

E. Discharge Reporting - Any results of monitoring required above, excluding screening data, must be submitted to the Department by appending them to the corresponding DMR. Failure to perform the required discharge monitoring and reporting shall constitute a violation of the terms of the SPDES permit.

F. Prohibited Discharges - **In all cases, any discharge which contains a visible sheen, foam, or odor, or may cause or contribute to a violation of water quality is prohibited.** The following discharges are prohibited unless specifically authorized elsewhere in this SPDES permit: spills or leaks, tank bottoms, maintenance wastewaters, wash waters where detergents or other chemicals have been used, tank hydrotest and ballast waters, contained fire fighting runoff, fire training water contaminated by contact with pollutants or containing foam or fire retardant additives, and unnecessary discharges of water or wastewater into secondary containment systems.

* Discharge includes stormwater discharges and snow and ice removal. If applicable, a representative sample of snow and/or ice should be collected and allowed to melt prior to assessment.

** If the stored substance is gasoline or aviation fuel then sample for oil & grease, benzene, ethylbenzene, naphthalene, toluene and total xylenes (EPA method 602). If the stored substance is kerosene, diesel fuel, fuel oil, or lubricating oil then sample for oil & grease and polynuclear aromatic hydrocarbons (EPA method 610). If the substance(s) are listed in Tables 6-8 of SPDES application form NY-2C then sampling is required. If the substance(s) are listed in NY-2C Tables 9-10 sampling for appropriate indicator parameters may be required, e.g. BOD5 or toxicity testing. Contact the facility inspector for further guidance. In all cases flow and pH monitoring is required.

SPECIAL CONDITIONS - INDUSTRIAL POLLUTANT MINIMIZATION PROGRAM POLYCHLORINATED BIPHENYLS (PCBs)

1. The permittee shall develop, maintain, and implement a Pollutant Minimization Program (PMP). The PMP is required because the calculated water quality based effluent limit (WQBEL) of 0.001 nanograms/liter (ng/L) for Total PCBs is below the permit limit (quantification level) of 300 ng/L per Aroclor using EPA Method 608. The goal of this PMP will be to meet the calculated WQBEL. **WITHIN 6 MONTHS OF COMPLETION OF CONSTRUCTION OF AN APPROVED WASTEWATER TREATMENT SYSTEM AND POSITIVE DISCHARGE FROM OUTFALL 008, USING EPA METHOD 608**. The completed, approvable PMP plan shall be submitted to the Region 4 Water Engineer, 1130 North Westcott Road, Schenectady, New York 12306, and to the Bureau of Water Permits, 625 Broadway, Albany, New York 12233-3505, for approval. Subsequent modifications or renewal of this permit does not reset or revise this deadline unless a new deadline is set explicitly by such a permit modification or renewal.

2. The PMP 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 Best Management Practices Plan, may be used as part of the plan and may be incorporated by reference. As a minimum, the PMP plan shall include:

A. An on-going potential source identification, evaluation, and prioritization program.

B. Periodic monitoring designed to quantify and, over time, track the reduction of discharges of PCBs. As EPA Method 608 does not determine Total PCBs, monitoring using EPA Method 1668A is also required to determine the level of Total PCBs in the discharge. Minimum required monitoring is as follows: quarterly monitoring of wastewater treatment system influent(s), sludge(s), effluent(s), and outfall(s) which are known or suspected of containing PCBs; and, semi-annual monitoring of potential PCB sources except during the first year which shall be quarterly. This monitoring shall be performed using EPA Method 1668A and shall be coordinated with routine EPA Method 608 compliance monitoring, if applicable, so that the results can be compared. Additional PCB monitoring must be completed as may be required elsewhere in this permit.

C. An approvable schedule for submission of an approvable control strategy for reducing PCB discharges via cost-effective control measures, including but not limited to site treatment or remediation. The schedule for submission of a control strategy will become enforceable under this permit. The control strategy and the schedule for implementation of the control strategy will also become enforceable under this permit.

D. An approvable annual report shall be prepared and submitted to the Regional Water Engineer and to the Bureau of Water Permits by February 1of each year. This report shall summarize all PCB monitoring data (in a format acceptable to the Department - contact the permit writer to obtain an electronic spreadsheet for displaying EPA 1668A data); for treatment systems include a mass balance comparison of influent, effluent, and sludge levels; a list of known or potential PCB sources; all control measures implemented during the previous calendar year; monitoring, investigations, and control measures to be completed during the current calendar year; and document progress toward the goal of achieving the calculated WQBEL.

3. The PMP plan shall be modified whenever: (a)changes at the facility increase the potential for discharge of the PCBs, (b) actual discharges indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the PMP plan.

C:\MYFILES\Other\Norlite SPDES permit.wpd

SPECIAL CONDITIONS - INDUSTRIAL POLLUTANT MINIMIZATION PROGRAM MERCURY

1. The permittee shall develop, maintain, and implement a Pollutant Minimization Program (PMP). The PMP is required because the calculated water quality based effluent limit (WQBEL) of 0.7 nanograms/liter (ng/L) for Total Mercury is below the permit limit of 30 ng/L using EPA Method 1631. The goal of this PMP will be to meet the calculated WQBEL. **WITHIN 6 MONTHS OF THE EFFECTIVE DATE OF MODIFICATION TO THIS PERMIT**, the completed, approvable PMP plan shall be submitted to the Region 4 Water Engineer, 1130 North Westcott Road, Schenectady, New York 12306, and to the Bureau of Water Permits, 625 Broadway, Albany, New York 12233-3505, for approval. Subsequent modifications or renewal ofthis permit does not reset or revise this deadline unless a new deadline is set explicitly by such a permit modification or renewal.

2. The PMP 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 Best Management Practices Plan, may be used as part of the plan and may be incorporated by reference. As a minimum, the PMP plan shall include:

A. An on-going potential source identification, evaluation, and prioritization program.

B. Periodic monitoring designed to quantify and, over time, track the reduction of discharges of Mercury. Minimum required monitoring is as follows: monthly monitoring of wastewater treatment system influent(s), sludge(s), effluent(s), and outfall(s) which are known or suspected of containing Mercury; and, quarterly monitoring of potential Mercury sources, including raw materials, except during the first year which shall be monthly. This monitoring shall be performed using EPA Method 1631, and shall be coordinated with routine compliance monitoring, if applicable, so that the results can be compared. Additional Mercury monitoring must be completed as may be required elsewhere in this permit.

C. An approvable control strategy (including a schedule for implementation) for reducing Mercury discharges via cost-effective control measures, which may include but is not limited to site treatment or remediation. The schedule for implementation and the control strategy will become enforceable under this permit.

C. An approvable control strategy (including a schedule for implementation) for reducing Mercury discharges via cost-effective control measures, which may include but is not limited to site treatment or remediation. The schedule for implementation and the control strategy will become enforceable under this permit.

D. Treatment System Operation - The periodic monitoring required in item (2B) and elsewhere in this permit shall also be used, and supplemented if appropriate, to determine the most effective way to operate the wastewater treatment system(s) to ensure the greatest removal of Mercury while maintaining compliance with other permit requirements. For example, monitoring data may indicate that greater Mercury removals are achieved when the system(s) are operated below certain hydraulic loading thresholds.

E. An approvable annual report shall be prepared and submitted to the Regional Water Engineer and to the Bureau of Water Permits by February 1 of each year. This report shall summarize all Mercury monitoring data; for treatment systems include a mass balance comparison of influent, effluent, and sludge levels; a list of known or potential mercury sources; all control measures implemented during the previous calendar year; monitoring, investigations, and control measures to be completed during the current calendar year; and document progress toward the goal of achieving the calculated WQBEL.

3. The PMP plan shall be modified whenever: (a)changes at the facility increase the potential for discharge of the Mercury, (b) actual discharges indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the PMP plan.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) 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 within 90 days of the Effective Date of this Modification.

(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 five years.

(f) 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 6 NYCRR Part 750-1.2(a) and 750-2 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 at least five 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;**

[X] (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
Region 4 Water Engineer
1130 North Westcott Road
Schenectady, New York 12306

Phone: (518) 357-2234

c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.

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 measurementsshall 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.

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

C:\MYFILES\Other\Norlite SPDES permit.wpd

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.

[illegible] settings/jmharrin/My Documents/Norlite/1997 WQR.wpd

SPDES PERMIT FACT SHEET: Wastewater Data, Receiving Water Data, and, Permit Limit Derivation.

(see last pages of fact sheet for explanatory notes).

Date	June 15, 2007
Permit Writer	James M. Harrington
WQ Engineer	Charles St Lucia

(1) General Permittee Data:

Permit Number	Permittee Name	Facility Name	Location (C, T, V)	County	Industrial Code	Major/Sub Basin
NY 000 4880	Norlite Corp.		Cohoes (C)	Albany	1422/4953	12/01

(2) Summary of Final Outfall Flow Rate(s) and Receiving Water Data:

Outfall Information					Receiving Water Information								
	Latitude	Longitude	Flow Rate (gpd)					*For use by WQ Engineer* - Critical Data					
Outfall #	° ' "	° ' "	Average	Maximum or Design	Name	Class	Water Index Number	7Q10 (MGD)	30Q10 (MGD)	Dilution/ Mixing	pH (SU)	Temp (°F)	Hardness (mg/l)
003	42 45 14	73 40 20			Salt Kill Creek	D	H-239	INT			—	—	~100
004			69,400	216,000	Salt Kill Creek	D	H-239	INT.			—	—	"
06A			64,000	70,000	006			—			—	—	"
06B			33,900	46,000	006			—			—	—	"
006			97,900	116,000	Mohawk River	C	H-240	223			—	—	"
007					Salt Kill Creek	D	H-239	INT.			—	—	"
008			860	30,000	Salt Kill Creek	D	H-239	INT.			—	—	"
009			UKN	UKN	Salt Kill Creek	D	H-239	INT			—	—	"

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall 003 Discharge to Salt Kill - Class "D"

Source(s) of Wastewater	Quarry Water
Existing Wastewater Treatment Facilities	Settling
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended		YES *		
Flow Rate (gpd)	Average		Maximum					NA		—	—	—		
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGs 1.2.1	6-9.5	Tech	Okay		
Solids, Total Suspended (mg/l)					45				BPJ, TOGS 1.2.1 New.	703.2	"	"		
Solids, Total Dissolved (mg/l)					Monitor					—	"	"		
Solids, Settleable (ml/l)					0.1				BPJ, TOGS 1.2.1 New.	"	"	"		
Mercury, Total (ng/l)					30				BPJ	0.7 ng/l	Mercury Permit Writing			

* WET Testing recommended on a flow proportioned combined sample from outfalls 003, 004 and 008.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	004

Salt Kill - Class "D"

Source(s) of Wastewater	Shale Fines Leachate & Storm Runoff from Landfill Area
Existing Wastewater Treatment Facilities	None
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass							AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	PQL conc.	Basis	(mg/l) conc.	(mg/l) conc.	mass	Type	
WET TESTING					NA					Recommended		YES*		
Flow Rate (gpd)	Average	69,400	Maximum	216,000				NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGS 1.2.1	6-9.5	Tech	Okay		
Solids, Total Suspended (mg/l)					45				BPJ, TOGS 1.2.1 Narr.	703.2	"	"		
Temperature (°F)					90				Thermal Criteria, Part 704.2	704.2	"	"		
Cadmium, Total (mg/l					0.004				BPJ, TOGS 1.2.1	0.009	Current	limit o.k.		
Chromium, Total (mg/l)					1.7				BPJ, TOGS 1.2.1	2.8	"	"		
Chromium, Hexavalent (mg/l)					0.016				BPJ, TOGS 1.2.1	0.016	"	"		
Copper, Total (mg/l)					0.018				BPJ, TOGS 1.2.1	0.024	"	"		
Lead, Total (mg/l)					0.08				BPJ, TOGS 1.2.1	0.243	"	"		
Mercury, Total (ng/l)					30				BPJ	0.7 ng/l	Mercury	Permit Monitor		
Nickel, Total (mg/l)					1.8				BPJ, TOGS 1.2.1	0.61	0.61			
Zinc, Total (mg/l)					0.3				BPJ, TOGS 1.2.1	0.24	0.3	o/c		

* WET Testing recommended on a flow proportioned combined sample from outfalls 003, 004 and 008.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	06A

→ To Outfall 006

Source(s) of Wastewater	Treated Scrubber Blowdown, Boiler Blowdown, and Trunnion Non Contact Cooling Water
Existing Wastewater Treatment Facilities	Equalization, Flocculation, Chemical Addition and Precipitation, Filtration, and Sulfur Impregnated Activated Carbon Filters
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended?		YES/NO		
Flow Rate (gpd)	Average	64,000	Maximum	70,000				NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGS 1.2.1					
Arsenic, Total (lbs/day)						0.11			BPJ, TOGS 1.2.1					
Barium, Total (lbs/day)						2.88			BPJ, TOGS 1.2.1					
Beryllium, Total (lbs/day)						1.44			BPJ, TOGS 1.2.1					
Cadmium, Total (lbs/day)						0.04			BPJ, TOGS 1.2.1					
Chromium, Total (lbs/day)						0.14			BPJ, TOGS 1.2.1					
Copper, Total (lbs/day)						0.66			BPJ, TOGS 1.2.1					
Iron, Total (lbs/day)						2.88			BPJ, TOGS 1.2.1					
Lead, Total (lbs/day)						0.43			BPJ TOGS 1.2.1					
Nickel, Total (lbs/day)						0.94			BPJ, TOGS 1.2.1					
Selenium, Total (lbs/day)						0.07			BPJ, TOGS 1.2.1					
Zinc, Total (lbs/day)						0.66			BPJ, TOGS 1.2.1					

(3) Individual Outfall Data Summaries and Permit Limit Development:

Date	06/15/07

Outfall	06B

→ To Outfall 006

Source(s) of Wastewater	Trunnion Non Contact Cooling Water
Existing Wastewater Treatment Facilities	None
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended?		YES/NO		
Flow Rate (gpd)	Average 33,900		Maximum 46,000					NA						

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	006

To Mohawk River - Class "C"

Source(s) of Wastewater	Combined 06A and 06B
Existing Wastewater Treatment Facilities	None
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass							AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	PQL conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended?		YES/NO		
Flow Rate (gpd)	Average	97,900	Maximum	116,000				NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGs 1.2.1	6.5-8.5	Tech	okay		
Solids, Total Suspended (lbs/day)						66			BPJ, TOGS 1.2.1 Mass.	703.2	"	"		
Solids, Total Dissolved (g/l)					Monitor					500 mg/l	Mon.	okay		
Ammonia (as NH_3) (mg/l)					Monitor					1.5/2.2 "	Mon.	okay		
Chlorides (mg/l)					Monitor				"A"	250 "	Mon.	okay		
Chlorine, Total Residual (mg/l)					Monitor					0.005 "	Mon.	okay		
Temperature (°F)					115				Operational Necessity**	704.2	Tech	Okay		
Mercury, Total (ng/l)					30				BPJ	0.7 ng/l	Mass.	Permit writing		

** Temperature shall not exceed °F at the end of pipe, approximately a 2 mile run to the Mohawk River.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	007

To Salt Hill - Class "D"

Source(s) of Wastewater	Storm Runoff from Production Area
Existing Wastewater Treatment Facilities	None
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended?		YES/NO		
Flow Rate (gpd)	Average		Maximum					NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGS 1.2.1	6-9.5	Tech	okay		
Solids, Total Suspended (mg/l)					45				BPJ, TOGS 1.2.1 Narr.	703.2	Tech	okay		
Solids, Settleable (ml/l)					0.1				BPJ, TOGS 1.2.1 Narr.	703.2	Tech	okay		
Oil & Grease (mg/l)					15				BPJ, TOGS 1.2.1 Narr.	703.2	Tech	okay		

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	008

To Salt Kill - Class "D"

Source(s) of Wastewater	Storm Runoff from Tanker Truck Staging Area
Existing Wastewater Treatment Facilities	Activated Carbon
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC (ug/l)	Effluent (ug/l)			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended		YES*		
Flow Rate (gpd)	Average	860	Maximum	30,000				NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGS 1.2.1	6-9.5	Tech	okay		
Acenaphthene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	48	"	"		
Acenaphthylene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	48	"	"		
Acetonitrile (µg/l)					50				BPJ, TOGS 1.2.1	—	"	"		
Acetone (µg/l)					10				BPJ, TOGS 1.2.1 "A"	50	"	"		
Acetopenone (µg/l)					10				BPJ, TOGS 1.2.1	—	"	"		
Acrylonitrile (µg/l)					100				BPJ, TOGS 1.2.1 "A"	0.07	"	"		
Anthracene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	35	"	"		
Antimony, Total (µg/l)					100				BPJ, TOGS 1.2.1 "A"	3	"	"		
Benzene (µg/l)					5				BPJ, TOGS 1.2.1 "D"	10	"	"		
Benzidine (µg/l)					10				BPJ, TOGS 1.2.1 "D"	0.1	0.1			
Benzo(a)phyrene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	0.0012	0.002			
Benzo(ghi)phyrene (µg/l)					10				BPJ, TOGS 1.2.1	—	Tech	okay		
Benzo(k)fluoranthene (µg/l)					10				BPJ, TOGS 1.2.1 "A"	0.002	"	"		
Bromoform (µg/l)					50				BPJ, TOGS 1.2.1 "A"	50	"	"		
Butylbenzyl phthlate (ug/l)					10				BPJ, TOGS 1.2.1 "A"	50	"	"		

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	008, Continued

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC (ug/l)	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
Carbon Disulfide (µg/l)					10				BPJ, TOGS 1.2.1	–	Tech	okay		
Carbon Tetrachloride (µg/l)					10				BPJ, TOGS 1.2.1 "A"	0.4	Tech	okay		
Chlordane (µg/l)					10				BPJ, TOGS 1.2.1 "D"	2×10^{-5}	2×10^{-5}			
Chlorobenzene (µg/l)					25				BPJ, TOGS 1.2.1 "D"	400	Tech	okay		
bis (2Chloroethyl)Ether (µg/l)					10				BPJ, TOGS 1.2.1 "A"	0.03	"	"		
Chloroform (µg/l)					100				BPJ, TOGS 1.2.1 "A"	7	"	"		
2 - Chlorophenol (µg/l)					10				BPJ, TOGS 1.2.1	–	"	"		
m - Cresol (µg/l)					50				BPJ, TOGS 1.2.1	–	"	"		
o - Cresol (µg/l)					50				BPJ, TOGS 1.2.1	–	"	"		
Chrysene (µg/l)					10				BPJ, TOGs 1.2.1 "A"	0.002	"	"		
Dibenzo(ah)anthracene (µg/l)					10				BPJ, TOGs 1.2.1	–	"	"		
Dibenzofuran (µg/l)					10				BPJ, TOGs 1.2.1	–	"	"		
1,2 - Dichlorobenzene (µg/l)					10				BPJ, TOGS 1.2.1	≤ 50	"	"		
1,3 - Dichlorobenzene (µg/l)					10				BPJ, TOGs 1.2.1	≤ 50	"	"		
1,4 - Dichlorobenzene (µg/l)					10				BPJ, TOGs 1.2.1	≤ 50	"	"		
3,3 - Dichlorobenzidine (µg/l)					20				BPJ, TOGs 1.2.1 "A"	5	"	"		
1,2 - Dichloroethane (µg/l)					10				BPJ, TOGS 1.2.1 "A"	0.6	"	"		
2,4 - Dichlorophenol (µg/l)					10				BPJ, TOGS 1.2.1 "D"	1	1			
2,6 - Dichlorophenol (µg/l)					10				BPJ, TOGS 1.2.1	–	Tech	okay		
1,2 - Dichloropropane (µg/l)					10				BPJ, TOGS 1.2.1 "A"	1	Tech	okay		
2,4 - Dimethylphenol (µg/l)					50				BPJ, TOGS 1.2.1 "D"	5	5			
Dimethyl Phthlate (µg/l)					25				BPJ, TOGS 1.2.1 "A"	50	Tech	okay		

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	008, Continued

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC (ug/l)	Effluent (ug/l)			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
Ethylbenzene (µg/l)					50				BPJ, TOGS 1.2.1 "D"	150	Tech	okay		
Fluoranthene (µg/l)					10				BPJ, TOGS 1.2.1 "A"	50	Tech	okay		
Fluorene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	4.8	4.8			
Heptachlor (µg/l)					10				BPJ, TOGS 1.2.1 "D"	2×10^{-4}	2×10^{-4}			
Hexachlorobenzene (µg/l					10				BPJ, TOGS 1.2.1 "D"	3×10^{-5}	3×10^{-5}			
Hexachlorobutadiene (µg/l)					10				BPJ, TOGs 1.2.1 "D"	0.01	0.01			
Hexachloroethane (µg/l)					10				BPJ, TOGS 1.2.1 "D"	0.6	0.6			
Isobutanol (µg/l)					50				BPJ, TOGS 1.2.1	—	Tech	okay		
Isophorone (µg/l)					50				BPJ, TOGS 1.2.1	—	Tech	okay		
Mercury, Total (ng/l)					30				BPJ	0.7 ng/l	Mercury	Permit	Writing	
Methacrylonite (µg/l)					50				BPJ, TOGS 1.2.1	—	Tech	okay		
Methoxchlor (µg/l)					50				BPJ, TOGS 1.2.1	—	Tech	okay		
Methyl Methacrylate (µg/l)					50				BPJ, TOGS 1.2.1	—	Tech	okay		
Naphthalene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	110	Tech	okay		
1 - Naphthylamine (µg/l)					10				BPJ, TOGS 1.2.1	—	"	"		
Nitrobenzene (µg/l)					50				BPJ, TOGS 1.2.1 "A"	0.4	"	"		
PCBs, Total (ng/l)									Indicated by Aroclors "D"	1×10^{-6}	Permit			
Aroclor 1016 (ng/l)					300				BPJ "	"	Writing			
Arochlor 1221 (ng/l)					300				BPJ "	"	For			
Arochlor 1232 (ng/l)					300				BPJ "	"	PCB's			
Arochlor 1242 (ng/l)					300				BPJ "	"	"	"		
Arochlor 1254 (ng/l)					300				BPJ "	"	"	"		

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	008, Continued

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass					PQL		AWQC (ug/L)	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc	mass	Type	conc	Basis	conc.	conc.	mass	Type	
Aroclor 1260 (ng/l)					300				BPJ	1×10^{-6}	PCB	Permit	limiting	
Pentachlorophenol (ug/l)					10				BPJ, TOGS 1.2.1 "D"	14.5	14.5	Tech	okay	
Phenanthrene (µg/l)					10				BPJ, TOGs 1.2.1 "D"	45	Tech	okay		
Phenol (µg/l)					50				BPJ, TOGS 1.2.1 "D"	5	5			
Propionitrile (ug/l)					50				BPJ, TOGS 1.2.1	-	Tech	okay		
Pyrene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	42	Tech	okay		
Styrene (µg/l)					10				BPJ, TOGS 1.2.1 "A"	5	Tech	okay		
Tetrachloroehtylene (µg/l)					10				BPJ, TOGs 1.2.1 "D"	1	1			
Toluene (µg/l)					5				BPJ, TOGS 1.2.1 "D"	480	Tech	okay		
o - Toluidine (µg/l)					50				BPJ, TOGS 1.2.1 "A"	0.6	Tech	okay		
1,1,1 - Trichloroethane (µg/l)					10				BPJ, TOGS 1.2.1 "A"	5	Tech	okay		
1,1,2 - Trichloroethane (µg/l)					10				BPJ, TOGS 1.2.1 "A"	1	Tech	okay		
Trichlotoethylene (µg/l)					10				BPJ, TOGS 1.2.1 "D"	40	Tech	okay		
2,4,5 - Trichlorophenol (µg/l)					10				BPJ, TOGS 1.2.1 "D"	5	5			
2,4,6 - Trichlorophenol (µg/l)					10				BPJ, TOGS 1.2.1 "D"	5	5			
Trichlorotrifluoroethane (ug/l)					10				BPJ, TOGS 1.2.1 "A"		Tech	okay		
p - Xylene (µg/l)					5				BPJ, TOGs 1.2.1 "D"	$\leq$ 590	Tech	okay		

* WET Testing recommended on a flow proportioned combined sample from outfalls 003, 004 and 008.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	009

Salt Creek - Class "D"

Source(s) of Wastewater	Storm Runoff from Advanced Liquid Recycling Area
Existing Wastewater Treatment Facilities	None
EPA Point Source Category & Production Rate	NA

Effluent Parameter (Units)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	concentration		mass					PQL		AWQC	Effluent			
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	Basis	conc.	conc.	mass	Type	
WET TESTING					NA					Recommended?		YES/NO		
Flow Rate (gpd)	Average	UKN	Maximum					NA						
pH (su)	Minimum		Maximum		6.0 - 9.0		Range		BPJ, TOGS 1.2.1	6-9.5	Tech	okay		
Glycols (mg/l)					Monitor						Mass	okay		
Oil & Grease (mg/l)					15				BPJ, TOGs 1.2.1 Narr.	703.2	Tech	okay		
Solids, Total Suspended (mg/l)					45				BPJ, TOGS 1.2.1 Narr.	703.2	Tech	okay		

(4) Additional Issues:

Water Quality Based Effluent Limits (WQBELs):

New York State water quality regulations (for surface waters) are implemented by applying the Total Maximum Daily Load (TMDL) process to watersheds, drainage basins or waterbody segments on a pollutant specific basis. The analysis determines if there is a "reasonable potential" that the discharge of a pollutant will result in exceedance of ambient water quality criteria (AWQC). If there is a reasonable potential for an exceedance of AWQC, the TMDL is used to establish waste load allocations for point sources and load allocations for nonpoint sources of the pollutant. For point sources, the waste load allocations are translated to WQBELs for inclusion in SPDES permits. Reference - TOGS 1.3.1, USEPA Guidance for Water Quality - Based Decisions: The TMDL Process, 40 CFR 130 and the Clean Water Act 303(d).

The following table has been completed only for those parameters for which WQBELs were determined to be necessary.

Parameter					
Amount to be Allocated (TMDL)					
Number of Sources					
Allocation to this Permit					

Statistics:

The statistical methods utilized are consistent with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Generally based on lognormal analysis. If other data distributions such as normal or delta-lognormal are utilized it is noted below. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles. Two or more data ponts are necessary to calculate an average and a maximum. Non-detects were included in the statistical calculations at the reported detection limit unless otherwise noted.

Monitoring data collected during the following time period was used to calculate statistics:

This data was taken from the following source(s): DMRs; NY2-C Application, dated 6/11/03; analytical Data Package, dated 7/17/06

Internal Waste Stream Monitoring:

40 CFR 122.45(h)(1) allows the permit authority to monitor and limit parameters at internal locations when controlling them solely at the final outfall is impractical or infeasible. Dilution of a process wastewater with large volumes of cooling water and/or storm water is one example of when the use of an internal monitoring point is justified. Monitoring at the following internal outfalls is necessary for the reasons specified:

WET Testing:

Testing is required, in accordance with TOGS 1.3.2, for the following reasons: Unknown synergistic toxicity effects of the discharge of various metals and numerous hazardous substances to Salt Kill Creek .

Indicator Parameters:

In accordance with 40 CFR 122.44(e)(2), The permit writer has determined that effective treatment and/or acceptable performance for specific parameters is indicated by one or more other parameters which are limited and therefore a decision has been made to not limit or monitor these specific parameters. This judgement is based on the similarity between this and the regulated parameter(s) and historical data where available. The use of indicator parameters is not appropriate for WQBELs. Following is a list of the affected parameters:

Schedule of Compliance: None.

(5) Summary of Proposed Permit Changes:

Compared to the issued permit this draft is intended to replace, the following significant changes are proposed -
The permittee has applied for a new outfall 008; a field inspection has discovered a previously unknown outfall 009; the permittee is expanding the mining area by 54 acres that will involve the construction of an overburden storage area which will affect the storm runoff to outfalls 003and 007. The proposed modifications to the current permit (effective 5/1/04) are:

Add effluent limits and monitoring requirements for Mercury, Settleable Solids, and Total Dissolved Solids at outfall 003.

Decrease effluent limit for Nickel at outfall 004 to reflect new water quality limit.

Add effluent limits and monitoring requirements for Total Suspended Solids, Oil & Grease, and Settleable Solids at outfall 007.

Add effluent limits and monitoring requirements for various parameters present in the hazardous waste fuel used to heat the trunnions at outfall 008. This outfall serves storm runoff from the tanker truck staging area where trucks carrying the hazardous waste fuel are parked while awaiting their turn to unload their contents into the fuel storage tanks.

Add effluent limits and monitoring requirements for various parameters at outfall 009. This outfall serves storm runoff from the Advanced Liquid Recycling Area, where glycols are recovered and recycled.

Add Whole Effluent Toxicity (WET) testing on the combination of flows from outfalls 003, 004, and 008. This is added due to the unknown synergistic toxicity effects of the discharge of various metals and numerous hazardous substances to Salt Kill Creek, an intermittent stream.

Add additional footnotes to define sampling and/or analytical methods required for various parameters at the appropriate outfalls.
Update the map on the monitoring locations page.

Update the Best management Practices requirements to those now routinely used in SPDEs permit development.

Add Pollutant Minimization Program requirements for PCBs.

Add Pollutant Minimization Program requirements for Mercury.

(6) Explanatory Notes:

Please note that some of these terms are not applicable to every fact sheet.

AI. - Action level calculated in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs). See the permit for a complete definition.

AVG or Av - Average. The arithmetic mean.

AWQC - Ambient water quality criteria for the receiving water. The applicable standard, guidance value or estimated value in accordance with TOGS 1.1.1, TOGS 1.3.1 and 6NYCRR 700-705.

Basis - The technical analysis, internal guidance, regulation and/or law upon which an effluent limit or monitoring requirement is proposed.

BAT - Best Available Technology Economically Achievable in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.

BCT - Best Conventional Control Technology in accordance with TOGS 1.3.4, 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.

BPJ - Best Professional Judgement in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 122 and 125, 6NYCRR 754.1, ECL 17-0811 and the Clean Water Act.

BPT - Best Practicable Control Technology in accordance with TOGS 1.2.1, 40 CFR 125, 6NYCRR 754, ECL 17-0811 and the Clean Water Act.

Conc. - Concentration in units of mg/l, ug/l or ng/l.

Design Flow - Treatment system design capacity as noted in an approved engineering report.

Final - Final permit period requirements. A level of performance that must be achieved according to a schedule specified in either the permit or a consent order.

g/d - Grams per day discharged.

GW - Groundwater effluent limitation developed in accordance with TOGS 1.2.1 (nonPOTWs), TOGS 1.3.3 (POTWs), TOGS 1.1.2 and 6NYCRR 703.

Ind - Indicated parameter. See definition in section (4).

Interim - Interim permit period requirements. A level of performance that must be achieved while improvements are being implemented in order to achieve final permit period requirements.

lbs/d or #/d - Pounds per day discharged.

Mass - Mass discharge in units of #/d or g/d discharge.

Max or Mx - The maximum value.

MGD - Million gallons per day.

mg/l - Milligrams per liter.

Dilution/Mixing - Used to determine dilution available in receiving waters. For lakes, estuaries and slowly flowing rivers and streams, mixing zone dilution is generally assumed to be 10:1 unless data is available to indicate otherwise.

Model - Calibrated water quality model applied in accordance with TOGS 1.3.1.

Mon - Monitor only.

NA - The characteristics of this parameter and the reported discharge levels do not justify routine monitoring or a limit. Also indicates "not applicable".

ng/l - Nanograms per liter. 1000 ng/l = 1 ug/l = 0.001 mg/l.

PQL - The DEC published or site specific practical quantitation limit; the concentration in wastewater at which analytical results are thought to be accurate to within approximately plus or minus thirty percent.

R - "Rolled Over", i.e. the specific requirement in this permit is equivalent to the previous permit. R(T) is roll over of a technology based requirement and R(WQ) is roll over of a WQBEL.

Range - The discharge is limited to a range of effluent values, e.g. a pH limit of (6.0-9.0) SU.

RREL - EPA's Risk Reduction Engineering Laboratory treatability database.

T - Technology based effluent limit or requirement.

TOGS - Technical and Operational Guidance Series. Internal guidance to permit drafters used by the NYSDEC Division of Water to aid in permit drafting. Copies of these guidance documents may be obtained from the internet at

http://www.dec.state.ny.us/website/dow/togs/index.htm.

ug/l - Micrograms per liter. 1000 ug/l = 1 mg/l.

WET- Whole Effluent Toxicity (testing). See TOGS 1.3.2.

WQ - Water quality.

WQBEL - Water quality-based effluent limit. See information in section (4).

7Q10 - The minimum average 7 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving aquatic health based AWQC.

30Q10 - The minimum average 30 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving human health based AWQC

95% The 95th percent confidence interval for the historical effluent data used to draft the permit.

99% - The 99th percent confidence interval for the historical effluent data used to draft the permit.

133 - Secondary treatment requirements in accordance with TOGS 1.3.3, 40 CFR 133, 6NYCRR 754, ECL 17-0509 and the Clean Water Act

' - These parameters represent scans. Detections vary among the compounds which are included in the scans The listed value represent the maximum detected level of any compound in the scan.