HW → 2000.11.16 "Intent to modify" File copy

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 4
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John P. Cahill
Commissioner

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
7099 3400 0004 2463 0708

November 16, 2000

Timothy F. Lachell
Plant Manager
Norlite Corporation
628 South Saratoga Street, PO Box 694
Cohoes, New York 12047

RE: DEC #4-0103-16/16-0
Notice of Intent to Modify Permit
373 HW/APC Permit
Norlite Corp.
Lt Wgt. Aggregate, HW LGF Fuel
Cohoe(C), Albany County

Dear Mr. Lachell,

This letter is to provide you with notice of the Department's intent to modify Norlite's existing 373 Hazardous Waste/Air Pollution Control Permit pursuant to 6NYCRR621.14. The specific changes are found in the attached revised permit pages and encompass reductions in air emission limits and the feed rate of certain chemical constituents found in both the hazardous waste (i.e. Low Grade Fuel) and the shale used in the lightweight aggregate manufacturing process. Changes are also proposed in several operating parameters and an engineering study must be prepared as part of a required upgrading of the facility's air pollution control equipment.

This permit modification is based upon newly discovered material information in the form of the results (Trial Burn Report dated 8/25/00 and Multipathway Risk Assessment dated 10/2/00) of the May, 2000 supplemental Trial Burn to test stack gases at Norlite's facility. The results of this test indicate that the estimated health impacts due to air emissions from Norlite's lightweight aggregate kilns burning hazardous waste under current operating conditions exceed acceptable levels for incremental cancer risk (due to the emissions of carcinogenic constituents such as dioxin) and hazard index quotient (for emissions of non-carcinogenic constituents such as mercury).

Pursuant to 6NYCRR621.14 Norlite has 15 days (12/1/00) from the date of this letter to provide a written response giving reasons why the permit should not be modified and/or requesting a hearing. Failure to submit a statement by 12/1/00 will result in this permit modification becoming effective on 12/4/00. If you have any questions please contact this office.

Sincerely,

William J. Clarke

William J. Clarke
Regional Permit Administrator
Region 4

Norlitemodcvrltr.wpd
Dcltr4hq
CC: S. Schassler
S. Hammond
P. Counterman
C. Van Guilder/H. Brezner
S. Chetty/P. Amin
R. Ostrov
R. Leone

SUMMARY OF PERMIT MODIFICATION AUTHORIZED ON NOVEMBER 16, 2000:

Permit Pages: Addition of Special Condition 11 to require Norlite to submit an engineering study on upgrading the kiln's air pollution control system.

Modules I - VI, VII, IX: No changes.

Module VII:

1. Change condition VII.B.3 by reducing the permissible HCl emission from 4.6 lbs/hr to 2.0 lbs/hr and reducing the permissible Cl_2 emission from 0.062 lbs/hr to 0.03 lbs/hr.
2. Change condition VII.C.3 by reducing the permissible chlorine feed rate from 115 lbs/hr to 50 lbs/hr and clarifying that the new limit includes chlorine fed through shale.
3. Change condition VII.C.4 by reducing the metal emission limits, shale metal concentrations, shale metal feed rates, metal concentrations in the hazardous waste and metal feed rate in the hazardous waste.
4. Change condition VII.D.3 by reducing the inlet temperature to baghouse alarm set point from 435 °F to 365ºF and the inlet temperature to baghouse automatic cutoff limit from 450ºF to 375 °F.
5. Change in condition VII.D.3 by reducing maximum back end temperature hourly rolling average automatic cutoff limit and alarm set point from 1091°F & 1080ºF to 1025ºF & 1010ºF respectively. Similarly, reducing maximum back end temperature one minute average automatic cutoff limit and alarm set point from 1170ºF & 1160ºF to 1100ºF & 1090ºF respectively.
6. Add a condition to the special condition section of the Part 373 permit.

Attachments A - L: No changes.

Attachment M: Summary of 11/16/00 permit modification.

MODULE VII - INCINERATION AND ENERGY RECOVERY
KILNS 1 (EP2) AND 2 (EP1)

A. CONSTRUCTION AND MAINTENANCE

(1) The Permittee shall maintain the facility in accordance with the attached design plans and specifications, Attachment G, or equivalent.

(2) No modification to the incinerator and its flue gas cleaning system shall be made which would affect the achievement of the performance standards in Condition VII.B., or any other permit conditions specified in this permit, without first obtaining written approval from the Commissioner.

B. PERFORMANCE STANDARD

The Permittee shall maintain the incinerator so that, when operated in accordance with the operating requirements specified in this permit, it will meet the following performance standards:

(1) The incinerator must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated in this permit for each waste feed. DRE shall be determined using the method specified in 6NYCRR 374-1.8(e)

(2) The incinerator must not emit particulate matter in excess of 0.08 grains per dry standard cubic feet, when corrected for 7% oxygen in the stack gas in accordance with the formula specified in 6NYCRR 374-1.8(f).

(3) The Permittee must control hydrogen chloride (HCl) and chlorine (Cl,) emissions from the incinerator stack such that the rates of emission of HCl and Cl_2 do not exceed 2.0 lbs/hr (uncorrected for ammonium chloride) and 0.03 lb/hr respectively. These emission limits will be met by limiting the total feed rate of chlorine to the incinerator as provided in Condition VII.C.

(4) The Permittee must control emission of products of incomplete combustion (PICs) from the incinerator such that the carbon monoxide (CO) level in the stack gas, shall not exceed the limits specified in Condition VII.D.

(5) The Permittee must control emission of toxic metals from the incinerator by limiting the total feed rate of each metal into the incinerator, as specified in Condition VII.C.

(6) $S0_2$ stack emissions shall not exceed 30 lbs/hr/kiln.

(7) Stack emissions of nitrogen oxides measured as NO_2 shall not exceed 61 lbs/hr/kiln.

(8) Compliance with the operating conditions specified in this permit will be regarded as compliance with the above performance standards. However, evidence that compliance with such permit conditions is insufficient to ensure compliance with the above performance standards may be "information" justifying modification, revocation, or reissuance of the permit pursuant to 6NYCRR 621.14.

C. LIMITATION ON WASTES

The Permittee shall incinerate the following hazardous wastes only as allowed by the terms of this permit.

(1) The Permittee shall not incinerate any hazardous waste that contains any 6NYCRR Part 371 Appendix 23 organic hazardous constituents not found in Class 1 through Class 7 of the Thermal Stability Index.

(2) No waste or combination of wastes and fuel, as fed to the incinerator, shall exceed the design thermal capacity of 62M BTU/hr.

(3) The total chlorine fed to the incinerator (including the contribution by shale) shall not exceed 50 lb/hr

(4) The emission rates and mass feedrates of toxic metals to the incinerator shall not exceed:

Metals	Emissions Limit per Kiln	SHALE (22T/hr/kiln)		LLGF +Used oil/Waste Fuel A	
		Metal Concentration per kiln (mg/kg)	Metal Feed Rate per kiln (lb/hr)	Metal Feed Rate [A&B] per kiln (lb./hr)	Metal [B & C] Concentration per kiln mg/kg
Antimony	2.06E-05	2.96	0.13	0.113	23.8
Arsenic	2.53E-05	9	0.4	0.04	9.1
Barium	8.64E-05	260	11.45	0.72	147
Beryllium	5.06E-06	1	0.044	0.004	0.86
Cadmium	1.38E-04	3.5	0.15	0.0166	3.5
Chromium(T)	1.39E-04	30	1.32	2.16	441
Chromium(VI)	1.95E-05	-	-	-	-
Copper	5.43E-04	100	4.4	0.18	38.2
Lead	7.00E-05	45	1.98	1.34	282.8
Mercury	1.75E-03	0.2	0.009	0.0015	0.32
Nickel	1.79E-03	43	1.89	0.21	43.3
Selenium	1.99E-04	1.0	0.044	0.12	24
Silver	2.14E-04	1.0	0.044	0.07	14.6
Thallium	2.53E-05	1.0	0.044	0.21	43.3
Zinc	3.57E-03	230	10.12	0.12	24

A Total contribution from LLGF, and other fuels

B Sampling, analysis and feed planning prior to feeding wastes shall be performed in accordance with the approved Waste Analysis Plan, Attachment A of the permit.

C Concentration limits. applicable only to LGF fed directly from tanks 300, 400, 500 and 600 and LGF tanker trucks to the incinerators.

(5) The physical form of the waste shall be a pumpable liquid with a viscosity not exceeding 3000 SUS at 80ºF.

(6) The Permittee shall not accept the following wastes:

(a) Wastes containing pesticide constituents as specified in the Waste Analysis Plan, Attachment A, which cannot be blended to a concentration below 1.7%.

(b) Wastes with PCB concentration greater than 25 ppm or any regulated PCBs wastes as defined in 6NYCRR 371 and 40 CFR Part 761.

© Wastes containing polychlorodibenzo-p-dioxins (PCDD), polychlorodibenzofurans (PCDF) or hazardous wastes with the following waste codes: F020, F021, F022, F023, F026, F027 and F028.

(d) Any wastes not specifically identified as acceptable in the Waste Analysis Plan, Attachment A.

(e) Waste Fuel B-2 as defined in NYSDEC Air Guide 17.

(7) The revised procedure for sampling shale found in Section C of Norlite's 373 HW/APC application, Waste .Analysis Plan, Appendix C-2, Section 1.3 pages C-2(5),2(5)a, 2(5)b, 2(5)[c] (Revision: March 96) and page 2(6) shall be implemented no later than 11/15/96 with results provided beginning with the 11/96 monthly report. Split samples will be given to NYSDEC upon request with no restrictions.

(8) No used oil, fuel oil or mixture of these can be accepted for use as fuel unless analyzed prior to acceptance and off-loading in accordance with 374-2 and the permittee's Waste Analysis Plan (Attachment A). If used oil is intended to be accepted, stored, conveyed and burned as waste fuel A, then this material must meet the definition and criteria found in 6NYCRR 225-2 for Waste Fuel A as well as the following additional criteria prior to acceptance and off loading:

A) Is not a hazardous waste as defined by 6NYCRR 371 and the criteria found in this permit and attachments.

B) Has a PCB concentration of 25 ppm or less. Except for the consolidation of used oil loads no PCBs can be present as a result of mixing with used oil except for those exempted under 371.4(e).

C) No admixture of listed hazardous waste with used oil/Waste Fuel A.

Mixtures of used oil and characteristic hazardous waste, which no longer exhibit a characteristic, are allowed to be burned as waste fuel A but such mixing is

allowed by the used oil generator only. The permittee is prohibited from blending used oil with any hazardous waste for any purpose.

No storage in tanks previously used for the storage of hazardous wastes is allowed unless such tanks have been cleaned and decontaminated as per 6NYCRR 373, this permit and its attachments prior to their use for used oil/Waste Fuel A storage.

D) Used oil containing more than or equal to 1000 ppm of total halogens is presumed to be hazardous waste and such used oil must be burned as hazardous waste complying with all the operating requirements in Module VII.D of this permit unless the presumption of mixing with hazardous waste can be rebutted by demonstrating that the used oil does not contain hazardous waste (for example by using an analytical method from SW-846, Edition III to show that the concentrations of individual halogenated solvents listed in waste codes F001 and F002 are less than 100 ppm) and meets the definition and criteria for Waste Fuel A found in 6NYCRR 225-2 and this permit. Records of analysis conducted to rebut the presumption of mixing with hazardous wastes, must be retained at the facility for at least three years. Rebuttable presumption must be applied at the time of acceptance from the permitted transporter.

E) Analytical information must be included in the Monthly Report's Tank Certification submitted to the Department pursuant to Module VII.D.(7) of this permit.

F) The storage of Waste Fuel A/Used Oil must be in compliance with 6 NYCRR Part 360-14.3(e).

D. OPERATING CONDITIONS

(1) Hazardous wastes must not be fed into the incinerator unless the incinerator and waste feeds are operating within the conditions specified in Condition VII.D. This applies during any operation of the kilns, start-up, shut down and after a waste feed cut off (WFCO) of the incinerator. The permittee may burn in the absence of hazardous wastes (LLGF+SLGF) natural gas, no. 2, 4 or 6 fuel oil (virgin or rerefined) or used oil/Waste Fuel A (definition and criteria found in 6NYCRR 225-2 and this permit, Section C above) during startup, shutdown and after WFCOs as well as normal operation subject to the applicable operating parameters in this permit, the provisions of 6NYCRR 225 and 6NYCRR Part 374-2 and the requirements and emission limits found in the fossil fuel/non hazardous waste fuel section of the Air Pollution Control Permit. The burning of Waste Fuel A in the absence of hazardous waste shall cease immediately any time the carbon monoxide levels in the stack are at or above 500 parts per million at 7% Oxygen, dry as measured under VII.D(3). The permittee shall install and maintain an interlock

system that will prevent burning liquid and solid hazardous waste when the Carbon Monoxide levels register >100 ppm while burning Waste Fuel A.

(2) The Permittee shall control fugitive emissions from the combustion zone and the back end of the incinerator by continuously maintaining a negative kiln pressure and maintaining the baghouse pressure drop below the maximum operating limit as specified in Condition VII.D.3 and 4, and by implementing the operating procedures specified in Attachment G of the permit for operation with one baghouse module removed for maintenance.

(3) The Permittee shall feed the wastes described in Condition VII.C to the incinerator only under the operating conditions specified in Condition VII.D. The Permittee shall operate, monitor, maintain and calibrate the systems specified below to automatically activate the alarm and cut off the hazardous waste feed to the incinerator at the levels specified below when the operating conditions deviate from the limits established below. Testing of the automatic waste feed cutoff systems and alarms shall be in accordance with Condition VII.E.3.

System	Basis	Alarm Set-point	Automatic Cutoff Limit	Monitoring/Recording Frequency	Calibration Frequency[10]
LLGF flow, gpm[10]	HRA[1]	9 gpm	>10.3 gpm (HRA)[8]	Continuous/ OMA[2],HRA	Monthly
SLGF Feed Rate	Hourly Average	112 gal/hr	>114 gal/hr	Continuous/ hourly average	Monthly
Back-end Temp. (°F)				Continuous/OMA, HRA	Monthly
LLGF Minimum	HRA	885°F	<875°F		
LLGF Minimum	OMA	876°F	<866°F		
Maximum	HRA	1010°F	>1025°F		
	OMA	1090°F	>1100°F		
(When burning SLGF)					
Minimum	HRA	950°F	<940°F		
Minimum	OMA	970°F	<960°F		
Maximum	HRA	1081°F	>1091°F		
	OMA	1160°F	>1170°F		

System	Basis	Alarm Set-point	Automatic Cutoff Limit	Monitoring/Recording Frequency	Calibration Frequency[10]
Carbon Monoxide, ppm @ 7% O_2, dry	HRA	75	>100 >500 (non haz.waste oil feed cutoff)	Continuous/ OMA,HRA	Daily calib. Quarterly CE Test. Annual Performance Specification Test
I.D. fan current, amps	HRA	400	>404	Continuous/ HRA	Quarterly
Kiln pressure, "wg	INST[3]	-0.05	>-0.05(for 15 secs.)	Continuous/ OPM[4]	Monthly
Baghouse pressure drop, "wg -3 modules -2 modules[5]	OMA	 5.3 10.0	 <4.8 >9.4[6] <9.2 >11.0	Continuous/ OMA	Monthly
Scrubber Water Recirculation rate, gpm	OMA	194	<184	Continuous/ OMA	Monthly
Inlet Temperature to Baghouse	OMA	365°F	>375°F	Continuous /OMA	Monthly
Shale feed rate, tph	HRA	21.5	>22[9] 0(>30 min.)	Continuous/ OMA, HRA	Monthly
Lime feed rate, lb/hr per lb/hr Cl	NA	Upon detection of feed failure	<2.7 lb/hr per lb/hr chlorine feed (unless corrected WFCO 30 min. after going beyond the cutoff limit.)	Continuous (Feeder motor current)/ Record feed setting twice/shift	Monthly
Recirc. tank pH	HRA	8.0	<7.9	Continuous/ OMA, HRA	Daily
Ventruri Pressure, drop, "wg	OMA	2.5"	<2.0"(Unless corrected, WFCO 3 minutes after going beyond the cutoff limit)	Continuous	Monthly

System	Basis	Alarm Set-point	Automatic Cutoff Limit	Monitoring/Recording Frequency	Calibration Frequency[10]
Ducon scrubber pressure drop "wg	OMA	2.0"	<1.5"(Unless corrected, WFCO 3 minutes after going beyond the cutoff limit)	Continuous	Monthly
Static Pressure at kiln exit[7]	INST	To be determined	NA	Continuous/ OPM	Monthly

1. Hourly Rolling Average

2. One-minute Average of readings taken at least once every 15 seconds

3. Instantaneous reading taken at least once every 15 seconds

4. Instantaneous reading recorded once per minute

5. Operation with only two baghouse modules is permitted only with natural gas fuel. Use of other fuels is not permitted until such tune as a kiln exit pressure gauge is installed with the approval of the Department.

6. Within 10 minutes of alarm and thereafter, every 30 minutes, an operator shall inspect the kiln seals and APC ducting for fugitive emissions until the differential pressure drops to below 9.4 " wg. An inspection log shall be maintained. If fugitive emissions are observed, hazardous waste feed shall be cut off as soon as practicable but within 5 minutes.

7. Norlite shall submit results of evaluation of pressure testing and obtain Department approval prior to installing pressure gauge.

8. Written authorization will be given for the maximum liquid low grade fuel (LLGF) feed rate to rise to 10.3 GPM from 10.1 GPM and solid LGF (SLGF) to be burned at the maximum rate of 114 gallons/hour when to the satisfaction of the Department: A) the permanent wastewater treatment plant is completed and operating as per approved plans and SPDES permit and B) the APC scrubbers are operating at their optimum removal efficiency and blowdown rate.

9. In addition to the frequency specified, one randomly selected WFCO parameter shall be tested at least once every 7 days to verify the system accuracy and operation of the LLGF and SLGF control valves. An authorized DEC representative may, at random, request additional parameters to be tested in his or her presence.

10. Or whatever lower WFCO limits are required to comply with the metals and halogen feed rate limits. If lower WFCO limits are required, the corresponding alarm set points shall be set at a level of 0.4 gpm below the LLGF, used oil cutoff limits and 2 gal/hr below the SLGF cutoff limit.

(4) The Permittee shall operate the incinerator as well as monitor, maintain and calibrate the monitoring system as specified below:

System	Operating Limit	Monitoring/ Recording Frequency	Calibration Frequency
Oxygen	NA	Continuous*/ OMA	Daily calib. Quarterly CE tests. Annual Performance Specification Test
Opacity, Max.	20%		
Minimum scrubber water blowdown rate, gpm/kiln	>15 gpm[2]	Daily	Quarterly
LLGF Feed Line Pressure (psi)	>45	Daily	Monthly
SLGF Atomization Pressure"wg	>82"	Daily	Monthly
LLGF atomization pressure,"wg	>40"	Daily	Monthly

1. Continuous shall mean monitoring at least every 15 seconds and recording the averaged value every minute.

2. The permittee shall accomplish the following: 1) conduct sampling and analysis of the scrubber blowdown at the 28, 15 and 4.4 gpm rates for regulated metals, total suspended solids (TSS) and total dissolved solids (TSD), expressed as lb/hr, as per the approved test protocol dated 12/4/96 (modified by the Department 12/23/96). Testing is to commence in January, 1997. A final report of the results is due 30 days following the completion of the test. Should the Department determine that operation of the scrubbers at the 15 gpm/kiln blowdown rate produces removal efficiencies below that obtained at the 28 gpm/kiln rate then the Department can require the permittee to either increase the blowdown rate to 28 gpm/kiln or adjust total metals feedrates in the LGF and if necessary the shale. Such adjustments in feedrates shall be based on the scrubber blowdown analytical results provided to the Department in the final report covered above and will be determined for a maximum feed rate of 10.1 gpm for LGF and 22 tons/hour for shale according to the following formula:

LGF Feed rate in gpm:

$$= \frac{\text{Lb/hr of total regulated metal in blowdown at 15 gpm x 10.1}}{\text{Lb/hr of total regulated metal in blowdown at 28 gpm}}$$

Shale Feed rate in Tons:

$$= \frac{\text{Lb/hr of total regulated metal in blowdown at 15 gpm x 22}}{\text{Lb/hr of total regulated metal in blowdown at 28 gpm}}$$

(5) The Permittee shall suspend feeding hazardous wastes to the incinerator if and when the automatic waste feed cutoff system has been activated more than 30 times in a calendar month operating period. (Automatic cutoffs due to power outages will not be counted toward this total). Within three days from suspending operations, the Permittee shall

notify EPA Region II and the Department of the involuntary suspension. Such notification may also include a request for resumption of operation. This request shall describe the corrections made to the operation of the unit to prevent such frequent shutdowns. A decision concerning the resumption of operation shall be ordered by the Regional Administrator or Commissioner of the Department within five working days of the request being delivered by the source. The source shall not resume operations if the Regional Administrator or Commissioner denies the request.

(6) The Permittee shall report all process deviations from allowed operating limits listed in the permit and a summary of operations in a monthly report. This must be filed by the third week of the following month with the appropriate office of NYSDEC and EPA Region II Hazardous Waste Compliance Branch. At a minimum, the report must address the following items:

a. Process Operating Summary

- hours the unit was operated with hazardous waste (LLGF)
- brief explanation of the reasons for downtime

b. Continuous Monitor Operating Summary

-for each parameter exceeding the operating limit and/or waste feed cutoff limit during the month, list the following:

*parameter
*operating and interlock limit
*number of exceedances
*number of interlock shutdowns
*interlock shutdowns for the year to date
*cause of each exceedance and/or shutdown
*corrective action taken
*duration of exceedance
*duration of interlock shutdowns
*alarm activations and steps taken to prevent shutdown

-for the CO and O_2 monitors found to exceed the acceptable drift range during an audit or a daily span check, list the following:

*parameter
*date
*indicated drift

*corrective action performed

c. Metals Feed Summary

Concentrations and mass feed rates of each of the metals specified in Condition VII.C.4 in raw material and pumpable hazardous waste (LLGF and SLGF) and Waste Fuel A.

d. Used oil/Waste Fuel A (burnt in the absence of hazardous waste)

- Grade of Waste Fuel A (used oil)
- Hazardous or nonhazardous
- Date, starting and ending time used oil was burnt
- Metal concentration
- Metal feed rate
- Feed rate and specific gravity

(7) The kilns may be operated on LLGF for a maximum period of 30 minutes prior to introducing shale to the kilns, provided that all operating conditions specified in Condition VII.D are met prior to feeding LLGF. If a cessation of shale feed results during operation, the Permittee shall, within 30 minutes, stop the feed of LLGF to the kilns.

(8) The permittee shall submit within 30 days of the effective date of this permit to the Department for review and approval a revised control system package to implement any revised operating limits and monitoring parameters contained in Module VII, Section D, paragraphs (3) and (4). The control system package incorporating these changes shall be implemented within 5 days of Department approval. If any revisions to this package are necessary, they shall be submitted within 15 days of receiving notice from the Department that changes are required. Until approved, the permittee shall operate according to the operating parameters in VII.D (3) and (4) prior to the permit modification.

E. MONITORING AND INSPECTION

(1) The Permittee shall install, maintain, calibrate, and operate monitoring equipment which continuously records operating parameters specified in VII.D.3 and D.4 and required by 6NYCRR 373-2.15(g)(1)(I) and (ii).

(2) The incinerator and associated equipment shall be inspected, at least daily, for leaks, spills, emissions, and signs of a malfunction as required by 6NYCRR 373-2.15(g)(2).

(3) The Permittee shall perform testing of the automatic waste feed cut off systems and all associated alarms specified in Conditions VII.D.3 by simulating upset conditions for

each parameter, as required by 6NYCRR 373-2.15(g)(3). The automatic waste feed cutoff system and alarm levels shall be tested at least monthly for all system parameters providing there is continuing testing performed on at least one system parameter on a random basis once at least every 7 days to verify proper operation of the control valves. If the Permittee experiences an automatic WFCO (or OPCO), the Permittee may document this event as a test. If the testing data shows significant deviations, the Department reserves the right to require more frequent testing.

(4) The monitoring and inspection data required by Conditions VII.E.1, VII.E.2 and VII.E.3 must be recorded and the records must be placed in the operating log as required by 6NYCRR 373-2.5(c).

(5) Upon request of the Commissioner, the Permittee shall conduct the tests required by 6NYCRR 373-2.15(g)(1)(iii). These performance tests shall follow the procedure and the protocol to be approved by the Commissioner. By 2/1/96 the Permittee will submit a trial burn plan to the NYSDEC. This trial burn plan will be designed so that the performance of the incinerator may be reevaluated before the renewal of this Permit.

The NYSDEC will review and approve, comment upon, or deny the trial burn plan. The Permittee shall conduct the trial burn only after obtaining written authorization from the NYSDEC. Trial burn results including all back up data must be submitted to the NYSDEC six months before the expiration of this Permit (This date may be modified based upon the date upon which the Trial Burn Plan is approved by the Department.). The Permittee may conduct additional trial burns or tests subject to prior written approval by the NYSDEC (and the terms of this Permit).

(6) The Permittee shall operate the air pollution control equipment in compliance with the Operation and Maintenance (O&M) Plan, Attachment K.

(7) The permittee shall conduct training for all kiln burner operators according to the document titled "Kiln Burner Operator Training Program," dated 4/25/95.

(8) The Air Pollution Control dust must meet the requirements listed under 6 NYCRR. Part 374-1.8(m) for availing the hazardous waste exemption allowed under 373.1(e)(2)(vi). The waste derived residues must be characterized by composite samples with composite period not to exceed 24 hours to ensure that the residues are managed properly.

F. CLOSURE

The Permittee shall close the incinerator and all associated equipment as required by 6NYCRR 373-2.15(h) and as described within the applicable portions of Attachment I, Facility Closure Plan.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER	EFFECTIVE DATE
4-0103-16/16-0	6/1/92 (6/7/95,7/20/95,8/15/95, 10/26/95, 11/30/95, 2/9/96, 6/6/96, 11/16/00 mods)
FACILITY/PROGRAM NUMBER(S)	EXPIRATION OATE(S)
EPA I.D. # NYD080469935	6/1/97

PERMIT

Under the Environmental Conservation Law (ECL)

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	TELEPHONE NUMBER
Norlite Corporation	(518) 235-0401
ADDRESS OF PERMITTEE: P.O. Box 694, Cohoes, New York	
CONTACT PERSON FOR PERMITTED WORK: Richard Wallen, Environmental Manager	TELEPHONE NUMBER
NAME ANO ADDRESS OF PROJECT/FACILITY	
LOCATION OF PROJECT/FACILITY: 628 South Saratoga Street (State Route 32)	

COUNTY	TOWN/CITY/VILLAGE	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Albany	Cohoes	Salt Kill	E: 606.3 N: 4 734.2

DESCRIPTION OF AUTHORIZED ACTIVITY: Renewal of prior authorization to operate a hazardous waste management facility for the storage of specified hazardous waste in 214, 55 gallon containers up to 11,770 gallons (conditionally increased to 267, 55 gallon drums up to 14,700 gallons), storage/treatment in fifteen tanks with a total capacity of 144,100 gallons and incineration as a fuel in two rotary kiln industrial furnaces producing lightweight aggregate. Modifications of this permit as per Attachment M.

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.

PERMIT ADMINISTRATOR:	ADDRESS
William J. Clarke	NYS DEC, Region 4 Headquarters 1150 North Westcott Road, Schenectady, NY 12306

AUTHORIZED SIGNATURE	DATE	
		Page 1 of 7

GENERAL CONDITIONS

Inspections

1. 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). 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. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Permit Changes and Renewals

2. The Department reserves the right to modify, suspend or revoke this permit when:
   a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
   b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
   c) new material information is discovered: or
   d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

3. 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, fees or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

4. 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 the expiration of all other permit types.

5. 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.

Other Legal Obligations of Permittee

6. The permittee has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature and by whomever suffered, arising out of the project described in this permit and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from this project.

7. The 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.

8. The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required for this project.

Special Conditions

FOR ARTICLE 27 , Title 9; 6 NYCRR Part 373
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1 This permit is based on the assumption that the information submitted in the permit application submitted 4/4/86, and revised as indicated below (thereafter referred to as the application) is complete and accurate and that the facility will be operated as specified in the application. Any inaccuracies or incompleteness found in the information may be grounds for the termination or modification of this permit and potential enforcement action.

Complete Application Documents

1. 6 NYCRR Part 373 Permit Application dated May, 1992 (Vol I - III), and subsequent revisions as updated May 25, 1995. Revisions 11/21,22/95).
2. Trial Burn Report submitted December 1992, and revisions up to May 25, 1995.
3. Allowable Metals Concentration Report dated December 1991, and subsequent Air Modeling Analysis addendums up to June 1993. Revisions to 5/95.
4. Human Health Risk Assessment Report submitted December, 1991, and subsequent addendums up to June 1993. Revisions to 5/95
5. Environmental Assessment Form 11/93, revised 11/95.

2. The Permittee must operate the facility in strict accordance with the modules and attachments to this permit specified below:

Module I:	Standard Conditions
Module II:	General Facility Conditions
Module III:	Corrective Action Requirements
Module IV:	Waste Minimization Requirements
Module V:	Storage in Containers, Management of tanker and drum transport trucks
Module VI:	Storage/Treatment in Tanks
Module VII:	Incineration and Energy Recovery
Module VIII:	Land Disposal Restrictions
Module IX	Air Emission Standards for Organic Air Emissions
Attachment A	Waste Analysis Plan
Attachment B:	Security, Inspection and Preparedness/Prevention Procedures
Attachment C:	Personnel Training
Attachment D:	Contingency Plan

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Attachment E:	Container Management
Attachment F:	Tank Management
Attachment G:	Incinerator/Energy Recovery Operation
Attachment H:	Closure Plan
Attachment I:	Engineering Drawings
Attachment J:	Best Management Practices Plan
Attachment K	Fugitive Dust Plan and Addendum
Attachment L	Noise Control Plan
Attachment M:	Major/Minor Permit Modifications Summary

3. Pursuant to the Environmental Conservation Law, Article 3-0149, all the analyses performed to comply with the analysis requirements of this permit shall be performed by laboratories certified in the appropriate categories by the New York State Department of Health, Environmental Laboratory Approval Program (ELAP), if ELAP issues certifications in such categories. The permittee shall also: a) assure any vendor laboratory used will use the permittee's sample control numbers, 2) assure the vendor laboratory and its own have a comprehensive quality assurance and control program to address testing procedures and chain of custody of samples and 3) take full responsibility for the results it obtains and uses from vendor and its own laboratories.

4. The Permittee shall inform the Department within 24 hours of analytical results that indicate a PCB concentration of greater than 10 ppm in any individual load. The Permittee shall identify the supplier or generator of the waste load.

5. Any modification to the permit or regulated activities, as well as permit renewals, must be submitted in triplicate for prior approval to the Regional Permit Administrator at NYSDEC, Region 4, 1150 North Westcott Road, Schenectady, New York 12306, with two copies to NYSDEC, Bureau of Material Storage, Combustion & Regulation, 50 Wolf Road, Albany, New York 12233 and USEPA Region II, Hazardous Waste Permits Branch, 290 Broadway, New York, New York 10278. Any submittals of plans, reports, etc. made in order to comply with the permit conditions shall be sent as per Page I-10 of this permit.

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6. An account to fund the Department's monitoring of the permittee's compliance with the terms hereof shall be established with the Department as follows:

   a. The sum of fifty thousand dollars ($50,000,00) shall be submitted to the Department within ten (10) days of the effective date of this permit, with which the monitor fund shall be established. The account balance must be sufficient to meet at least the next nine months' anticipated expenses. Charges against the account shall relate to actual staff time expended for the life of the project from permit effective date through Department approval of the final closure as implemented, and shall be for expenses described by paragraph (b) of this condition. The maximum staff time to be charged to the permittee will not exceed one full time equivalent employee over the life of the facility. Quarterly payments shall be made for the duration of this Permit in accordance with the following provisions:

   b. Costs to be covered by this fund include:

      1) Direct personal service costs and fringe benefits, including the cost of replacement personnel for the regulatory assigned monitor(s);

      2) Direct non-personal service costs, including purchase or lease of a vehicle, if necessary, and its full operating costs;

      3) Inflation increases; and

      4) Overhead or support costs at the approved Federal Indirect Cost Rate.

   c. The Department may revise the required payment on a quarterly basis to include all costs of monitoring to the Department. The quarterly revision may take into account factors such as inflation, salary increases, accrued interest to be applied to the balance, changes in operating hours and procedures and the need for additional on-site monitors.

7. The Permittee shall comply with the recommended control measures found in the approved Noise Impact Analysis, Technical Report AA-1790 (dated 9/24/90) and the Fugitive Dust Control Plan by Sci-Tech (dated 8/30/90). The Permittee shall also implement the Fugitive Dust Plan Addendum by Sci-Tech (dated 10/95 with cover letter dated 10/27/95) according to the approved schedule found in that plan. The permittee shall maintain a Fugitive Dust Plan implementation escrow account initially funded at $565,000. This account can be

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drawn down according to the schedule of implementation as specific improvements are completed and the Department has conducted a final inspection, determined the specific improvement(s) to be in compliance with the plan and provided a written drawdown authorization. The schedule of implementation is to be revised to specify escrow amount drawdown with the completion of specific dust control measures and submitted for Department review and approval by 12/15/95. Once implemented the permittee shall maintain all fugitive dust control measures in compliance with the plan. In addition, the permittee is also responsible for maintaining compliance with the Norlite Best Management Practices Plan (Revision 1 dated 4/30/92 and as revised 10/26/95).

8. The Permittee shall prepare and submit a Compliance Report on 4/1 of every year describing the facility's record in complying with all DEC permits and the conditions contained therein for the previous twelve months including complaints received and how responded to. It shall also include a projection of key compliance elements and milestones in the forthcoming twelve months.

9. The permittee shall maintain available for inspection at the facility a list and description of all complaints received at this facility and the evaluation of the complaints and actions taken on such complaints.

10. The permittee shall adhere to the truck traffic routing and maximum truck trip numbers identified in the Environmental Assessment Form (EAF) dated 11/93 and most recently revised 11/95. If complaints regarding truck traffic operating during off hours are received which are of a continuing nature and are substantiated by the Department then the Department at its discretion may impose restrictions on the hours which the permittee may allow trucks to enter or exit the facility. Such operating hour restrictions shall be no more stringent than:

    - No trucking operations on Sundays or the following holidays: New Years, Labor Day, Independence Day, Memorial Day, Thanksgiving Day and Christmas Day.*

    - Monday through Friday trucking operations limited to 6:30 AM to 6 PM. Saturday trucking operations limited to 8 AM to 4 PM.*

    *These restrictions shall not apply to emergency fuel/LGF deliveries. Late truck arrivals due to circumstances beyond the operator's control (e.g. weather, traffic and breakdowns) shall be permitted to enter and park in the authorized truck staging or unloading areas.

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11. Within 30 days of the effective date of this permit modification, the Permittee shall submit for review and approval by the Department a report containing an engineering study on the required upgrade to the kiln air pollution control system (APCE) to control its emissions (especially polychlorodibenzo-p-dioxins & polychlorodibenzofurans) to a level which will result in an incremental cancer risk of 10^{-5} or less and a hazard quotient of 0.25 or less for all non-carcinogenic constituents including mercury. This report must also contain a schedule with milestones for completing the upgraded APCE construction, commissioning it and testing it to verify compliance with RCRA/MACT performance standards.