SECURITY AND INSPECTION PLAN

NORLITE LLC
COHOES, NEW YORK
NYD080469935

PREPARED FOR:

NORLITE LLC
628 SOUTH SARATOGA STREET
COHOES, NEW YORK 12047

PREPARED BY:

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June 2014

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1.0 INTRODUCTION

This Security and Inspection Plan (SIP) was developed by Norlite LLC for the Norlite facility herafter referred to as the "Facility". This Plan provides a description of the equipment and procedures in place to prevent unknowing or unauthorized entry of persons or livestock onto active portions of the hazardous waste management areas along with inspection procedures to identify and prevent system malfunction, equipment deterioration and human error.

When changes in the facility, operations, or equipment occur, the Operations Manager or designee will revise the inspection schedules and/or criteria contained in this plan. The requirements for making changes and/or revisions to this document are provided in Condition D of Module I.

2.0 Security Procedures and Equipment

To comply with 6 NYCRR 373-2.2(f)(1), Norlite employs personnel who provide security coverage Monday through Friday from 6AM to 10PM and Saturday 6AM to 12PM at the main plant entrance (Elm Street). The main entrance is closed on Sundays and holidays. Access to the second plant entrance, at Saratoga Street, is controlled by Key Card activated security gate. Norlite personnel monitor the active portion of the facility and its operating conditions twenty four hours per day, 365 days per year.

Norlite LLC complies with the security provisions of 6 NYCRR 373-2.2(f)(2) and 373-2.2(f)(3) as outlined below.

The following paragraphs describe applicable aspects of the plant security system.

2.1 – 24-Hour Surveillance System

Norlite operates its facility 24 hours per day, 365 days per year. During periods of normal kiln operation, at least three employees are on duty at the site at all times. Ample lighting is provided throughout Norlite's facility except for the quarry area which does not contain hazardous waste and which does not operate at night. In addition, most plant areas are connected to an internal telephone system which is also used for communications outside the plant. During periods the kilns are not

operated, at least one employee is on duty at the site at all times. Norlite employees conduct periodic inspections of the active portion of the facility.

2.2 – Barrier and Means to Control Entry

Due to the large area of the site (200 acres), a facility security fence is not practical. However, Norlite has installed a security fence to control entry to the hazardous waste storage area which includes the drum storage, bulk and loading/unloading areas. Norlite has installed a fence on the south end of the facility from the south gate to the quarry.

The kiln area will not be provided with a security fence. However, this area is continuously monitored by Norlite personnel, to prevent unauthorized access.

Fenced areas will remain locked at all times except during periods of loading and unloading. During these times, Norlite personnel will be in attendance.

Employees are provided with key cards to gain access to the facility from South Saratoga Street. Guests who arrive from South Saratoga Street must contact the office from outside the gate using the intercom system that is provided. The gate is monitored by closed circuit video so the office personnel can visually observe the traffic. Employees and Guests may enter on the south side of the facility by way of Elm Street. This gate is secured by a manned guard shack and controlled access is possible twenty-four hours per day.

2.3 – Warning Signs

Signs which are legible from a distance of 25 feet are posted at the entrance of the active portion of the Norlite facility, as well as the Low Grade Fuel (LLGF) storage tank area, drum storage area, unloading area, and the kiln area. These signs are visible from all angles of approach, and bear the legend **"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT'** and **"No Smoking".**

2.4 – Waiver

The provisions of 6NYCRR Subpart §373-2.2(f)(1) authorize a waiver from the security provisions of 6NYCRR Subpart §373-2.2(f)(2) and (3) if a facility can demonstrate that unknowing or unauthorized persons or livestock would not injure themselves or cause a RCRA violation upon entering the active portion of the facility. Norlite does not request a waiver at this time.

3.0 INSPECTION

3.1 – Inspection Schedule

AREA/EQUIPMENT	SPECIFIC ITEM	TYPES OF PROBLEMS	INSPECTION FREQUENCY
Security Devices	Signs	Removed, Dirty and Knocked Down	Weekly
Operating and Structural Equipment	Dikes	Erosion, Cracks, Deterioration	Weekly
	Tank Cover (shale)	Erosion	Weekly
	Ramps	Erosion, Uneven Settlement, Wet Spots	Weekly
	Circulating Pumps	Leaks, Loss of metal thickness, Corrosion	Weekly
	Valves & Piping	Leaks, Packing, Deterioration, Corrosion	Weekly
	Concrete Pads, Holding Area	Cracks, Corrosion, Deterioration	Weekly
	Structural Supports	Corrosion, Looseness	Daily
	Macerating Pump	Leaks, Corrosion	Daily
Container Storage Area	Container Placement & Stacking	Aisle Space and Stacking	Daily
	Sealing of Open Containers	Open Lids or Bungs	Weekly
	Labeling of Container	Improper Identification, Data Missing	Weekly
	Containers	Corrosion, Leaking, Material Defects	Weekly
	Container Pad	Spills, Cracks, Uneven Settling, Wet Spots	Daily
	Dikes	Erosion, Wet Spots, Cracks, Deterioration	Weekly
	Debris & Refuse	Aesthetics, Poor Housekeeping	Weekly
	Warning Signs	Damaged, Missing	Weekly

Loading/Unloading Area	Pad	Spills, Cracks, Uneven Settling, Wet Spots	Daily
	Sealing of Open Containers	Open Lids or Bungs	Daily
	Debris and Refuse	Aesthetics, Poor Housekeeping	Daily
	Labeling of Containers	Improper Identification, Data Missing	Daily
LGF Storage Building Tanks 100 A,B,C & 200 A,B,C	Concrete Containment	Spills, Cracks, Uneven Settling, Wet Spots, Leaks	Daily
	Piping and Fittings	Corrosion, Leaks, Deterioration	Daily
	Valves	Leaks, Packing, Deterioration	Daily
EQ Tanks 101 A, B & 102 A, B	Concrete Containment	Spills, Cracks, Uneven Settling, Wet Spots, Leaks	Daily
	Piping and Fittings	Corrosion, Leaks, Deterioration	Daily
	Valves	Leaks, Packing, Deterioration	Daily
Tank Storage and Ancillary Equipment (Tanks 300, 400, 500, 600)	Containment Area	Liquid Build up Due to Tank or Pipe Break	Daily
	Shale Cover	Erosion, Wet Spots, Settling	Daily
	Piping and Fittings	Corrosion, Leaks, Deterioration	Daily
	Valves	Leaks, Packing, Deterioration	Daily
	Debris and Refuse	Aesthetics, Poor Housekeeping	Daily
	Vegetation	Growth	Daily
External Tank	Tank Shell	Integrity Testing	Annual
Interior Tank	Tank Shell	Corrosion, Welds, Leaks, Bulges, Buckles	Annual
Solids Mixing Tank Area	Concrete Containment	Spills, Cracks, Uneven Settling, Wet Spots, Leaks	Daily
	Piping and Fittings	Corrosion, Leaks, Deterioration	Daily
	Valves	Leaks, Packing, Deterioration	Daily
Process Monitoring Equipment	LGF Flow Meter	Reading Malfunction	Daily
	Gas Exit Temperature	Reading Malfunction, Electrical Failure	Daily
	Flame/Material Temperature	Reading Malfunction, Electrical Failure	Daily
	Carbon Monoxide	Reading Malfunction, Sensor/Detector Failure	Daily
	Oxygen	Reading Malfunction, Cell Failure	Daily
	Combustion Gas Velocity	Reading Malfunction	Daily
	Atomization Air Pressure Gauge	Reading Malfunction, Compressor Failure	Daily
	Venturi Water Flow	Reading Malfunction, Pump Malfunction	Daily
	Scrubber Pressure Drop	Reading Malfunction, Pump Failure, Plugging	Daily
	Combustion Air	Reading Malfunction, Fan Failure	Daily
	Kiln Pressure	Reading Malfunction, Plugging, Draft	Daily
	Blowdown Rate	Reading Malfunction, Float Sticking	Daily

3.2 – General Inspection Requirements

Permittee complies with 373-2.2 (g) and follows the general inspections outlined below.

This inspection plan is intended to provide a mechanism to identify and prevent system malfunctions, equipment deterioration, and human errors which, if allowed to continue without

correction or preventive action, may lead to a release of hazardous waste constituents to the environment or create a threat to human health. The performance of periodic and effective inspection is essential if such events are to be prevented. To this end, Permittee has developed procedures for performing inspections so that substandard conditions and practices are identified, and appropriate actions are taken in a timely manner.

The inspection program is implemented by qualified individuals assigned the responsibility to detect any unsafe conditions at the facility and prevent adverse consequences. The designated individuals have the training and authority to: (1) implement the required inspections, (2) perform necessary evaluations and hazard assessments, and (3) recommend appropriate response actions.

Inspections are performed according to pre-determined schedules based on engineering knowledge and operational experience with the systems and processes involved. Each inspection item has the content and frequency necessary to alert facility personnel prior to development of a serious problem. A trained inspector assesses each item noting any potential malfunction/deterioration of equipment or operator error through regular observation of the processes and procedures. The level of response and its timing is determined by the nature and seriousness of the problem identified – with protection of personnel and the prevention of adverse environmental impact being of paramount concern.

Permittee will remedy any deterioration or malfunction discovered by an inspection as required by 6 NYCRR Part 373-2.2(g)(3). Records of inspections are kept as required by 6 NYCRR Part 373-2.2(g)(4). Specific inspection schedules for the landfill, container storage areas, tanks, and incinerators are presented in each unit's specific section.

Any deterioration or malfunction of equipment or structures detected during inspection at the facility is remedied on schedule (immediately if necessary) to ensure that the problem does not lead to environmental or human health hazards. Specifically, any leaking container discovered is immediately lifted into an oversized recovery drum and sealed, and any leaked or spilled material is immediately absorbed by vermiculite and/or speed-dry or managed in another manner acceptable to the Department. The facility’s Inspection Log, contains appropriate space for recording the date and nature of any repairs or other remedial actions taken in response to problems identified during facility inspections.

Refer to the Integrated Contingency Plan (ICP) for description of responses to spills and emergency situations.

The inspection schedules for the facility and its hazardous waste management units are utilized to detect and correct malfunctions and deteriorations, operator errors, and discharges which may cause or may lead to the following:

- Release of hazardous waste constituents to the environment or,
- A threat to human health.

3.3 – Types of Problems

The schedules identify the specific types of problems to look for during the inspection (e.g., leaks, deterioration, readings out of specified range, missing items or materials, inoperative equipment, etc.).

3.4 – Frequency of Inspection

The schedules include inspection frequency that is based on the rate of possible deterioration of equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, are to be inspected daily when in use.

3.5 – Specific Process Inspection Requirements

Inspections of hazardous waste management facilities are the responsibility of the following Norlite personnel:

1. Compliance Personnel
2. Kiln Field Operator
3. Safety Manager
4. Environmental Manager

5. Fuel Farm Operator
6. Burner Operator

Each person is responsible for regular inspections of various portions of the hazardous waste management facilities and initiation of corrective action if deficiencies are noted. These reports are submitted each day to the, Safety Manager, Environmental Manager, Plant Manager, and all facility/supervisors. The Plant Manager will have overall responsibility for prevention of hazards.

3.5.1 Kiln Field Operator's Shift LLGF Inspection Report

Three times each night shift, the Kiln Field Operator on duty is required to inspect the LLGF storage area and to record results of each inspection on the "Kiln Field Operator's Shift LLGF Inspection Report" form. Information required on the inspection report includes the Kiln Field operator's name, date and time of inspection, item of inspection, problems encountered and observations. A copy of the "Kiln Field Operator's Shift LLGF Inspection Report" is attached to this part as Figure F-3. A file of "Kiln Field Operator's Shift LLGF Inspection Reports' is maintained at the facility and are part of the inspection log.

3.5.2 Fuel Farm Operator's Daily LLGF Inspection Report

Daily, the fuel farm operator on duty is required to inspect the LLGF storage area including containers and LLGF pumps and lines and to record results of each inspection on the "Fuel Farm Operator's Daily LLGF Inspection Report" forms. Information required on the inspection report includes the fuel farm operator's name, date and time of inspection, item of inspection, problems encountered and observations. A copy of the "Fuel Farm Operator's Daily LLGF Inspection Report" is attached to this part as Figure F-4. A file of "Fuel Farm Operator's Daily LLGF Inspection Reports" is maintained at the facility and is part of the inspection log.

3.5.3 Burner Operator's Shift Log

The burner operator on duty is required to inspect the LLGF portion of the rotary kiln operation and to record results of these inspections on the "Burner Shift Log" form. Due to the nature of the burner position and the need to continuously monitor fuel usage, burning zone, temperatures and overall operation of the rotary kiln (incinerator/energy recovery unit) to produce acceptable lightweight

aggregate, the inspections are ongoing with operation of the kiln. Any potential problem will immediately be seen and corrective action initiated. Information required on the report includes the burner operator's name, date, day, item of inspection, type of problem encountered and observations. A copy of the "Burner Operator's Shift Log" is attached to this part as Figure F-5. A file of "Burner Operator's Shift Logs" is maintained at the facility and is a part of the inspection log.

3.5.4 Weekly Environmental (RCRA) Inspection Report

Weekly, the Compliance Section is required to make a comprehensive inspection of the LLGF storage area including containers, the LLGF pump area, the LLGF building, pipe tunnel, and the kiln burner area. The results of each inspection are recorded on the "Weekly Environmental and LLGF Inspection Report" form. Information required on the inspection report includes the Compliance Representative's name, date and time of inspection, item of inspection, problems encountered and observations. A copy of the "Weekly Environmental and LLGF Inspection Report is attached to the part as Figure F-6. Weekly Environmental and LLGF Inspection Reports are maintained at the facility and are part of the inspection log.

3.5.5 LLGF Tank Inspection Report

Annually, based upon the schedule for tank cleaning, each below ground bulk LLGF storage tank (i.e. tanks no. 300, 400, 500 and 600) is inspected and tested as described below:

1. Following the removal of tank sludges, each tank is visually inspected for structural integrity particularly noting evidence or signs of potential leaks, buckles, bulges or excessive corrosion.

2. Exposed tank appurtenances such as access ports, nozzles, joints, valves and piping are inspected for signs of excessive corrosion, plugging or leaks.

3. If a tank has not undergone integrity testing during the previous 12 months by an independent inspector utilizing the NFPA Publication Number 329 criteria, that tank will be pressure tested in accordance with the protocols outlined in Operations Plan.

4. Each tank shell is tested for thickness determination as described in the Operations Plan.

5. The results of the inspection programs are documented on the form presented in Figure F-7. A file of these reports is maintained at the facility as part of the inspection log.

On an annual basis, each below ground tank is integrity tested utilizing the NFPA Publication Number 329 criteria. The six above ground tanks (i.e. tanks no. 100A, 100B, 100C, 200A, 200B and 200C) and the four equalization tanks (T101A, T101B, T102A and T102B) will undergo integrity testing once every five years by an independent inspector since they will be inspected on a daily basis for leaks. The results of the tests are maintained at the facility and are part of the operating record.

In addition to the RCRA Subpart BB monitoring, an integrity assessment is conducted on the transfer lines from the pumps to the kilns on an annual basis. The results of the tests are maintained at the facility and are part of the operating record.

Also, on an annual basis, the cathodic protection system on the four new tanks is confirmed. The results of the tests are maintained at the facility and are part of the operating record.

On a bimonthly basis (i.e., every two months), the sources of impressed current to the cathodic protection system are tested and recorded. The results of the tests are maintained at the facility.

3.5.6 Tanks and Tank Storage Areas

The high level switches, the level indicators and the pressure gauges on the tanks are visually inspected daily and measurements are recorded in the Kiln Field Operator's Daily LLGF Inspection Report form. In addition, the secondary containment area surrounding the tank is inspected daily to detect obvious signs of leakage such as wet spots. The results are recorded in the Kiln Field Operator's Daily LLGF Inspection Report form. Also, the aboveground portions of the tanks such as the piping, pipe fittings, and valves are inspected daily for deterioration, corrosion and leakage and the results are recorded in the Kiln Field Operator's Daily LLGF Inspection Report.

3.5.7 Tank Storage and Secondary Containment

In addition to the secondary containment provided by the liners under the Tanks 300, 400, 500 and 600, the LLGF building, used for Tanks 100A,B,C and 200A,B,C, also serves as a tertiary containment system for the outside tanks. In the event that the secondary containment system fills, liquid will overflow through a pipe to the LLGF storage building. The containment volume of this LLGF building is 33,940 gallons. This volume is sufficient to hold the entire contents of any LLGF tank that should fail.

Inspection of secondary containment facilities will be conducted as follows:

Weekly - Containment areas are inspected weekly by the Compliance Section for the items listed in Section 3.1. Details of inspection items are recorded on the "Weekly Environmental (RCRA) Inspection Report" (Figure F-6).

Daily - The secondary containment for loading/unloading areas, container sampling areas and drums stored in the unloading areas will be inspected for any spills.

3.5.8 Container and Container Storage Area

Daily, the containers and container storage area are inspected to insure proper aisle space, stacking and closed lids. Weekly, the containers are inspected for proper labeling, leaking, deterioration and corrosion, and the secondary containment system is inspected for various signs of erosion, deterioration, cracks or leakage. Drums stored in the truck unloading area are sorted on pallets to facilitate inspection for leaks. The results are recorded in the "Weekly Environmental (RCRA) Inspection Report".

3.6 – Remedial Action

If inspections reveal that non-emergency maintenance is needed, this will be completed as soon as possible to preclude further damage and reduce the need for emergency repairs. If a hazard is imminent or has already occurred, remedial action will be taken immediately. Norlite personnel will notify the appropriate authorities in accordance with the Integrated Contingency Plan and initiate remedial actions. In the event of an emergency involving the release of hazardous

constituents to the environment, efforts will be directed towards containing the hazard, removing it, and subsequently decontaminating the affected area.

3.7 – Inspection Log

The Permittee records and maintains an Inspection Log containing Daily, Weekly and Monthly Inspection Log Sheets. Each log sheet includes spaces for identifying the inspector's name and title, and inspection date and time.

All inspection log forms must contain the following information:

a. the inspector's name and title;

b. date and time of the inspection;

c. items inspected;

d. inspection parameters;

e. procedures, structures, and/or equipment inspected;

f. notation of any observations and/or problems;

g. notation of any remedial or corrective actions taken or the schedule for corrective action if cannot be corrected before the next inspection; and

h. date on which the corrective action was completed.

Records Retention

In accordance with the requirements of 6 NYCRR Parts 373-2.2(g)(4) and 373-2.5(c)(2)(v), inspection records for the HWMUs are maintained in the operating record. The inspection logs contain a list of inspection parameters as well as an inspection frequency. On each logsheet, the inspector must note the following information, at a minimum:

- Inspection Date
- Inspection Time

- Inspector
- Deficiencies
- Corrective Actions Taken and Date

The inspection records are retained on site for a minimum period of three years from their last entry.

4.0 GLOSSARY

Term	Definition
6 NYCRR	Title 6 of the New York Codes, Rules and Regulations
40 CFR	Title 40 of the Code of Federal Regulations
A.C.T.	Assess, Correct, Train
EMSI	Environmental Monitoring System Inspection
EWO	Environmental Work Order
HWMU	Hazardous Waste Management Unit
ICP	Integrated Contingency Plan
NACE	National Association of Corrosion Engineers
NFPA	National Fire Protection Act
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
SIP	Security and Inspection Plan
SWCI	Surface Water Control Inspection
WCM	Warning Coordination Meteorologist

KILN FIELD OPERATORS SHIFT REPORT

NAME_____ DATE_____ SHIFT_____

SUPERVISORS SIGNATURE:_____

WATER READINGS AND SILO LEVELS

QUARRY/CITY WATER READINGS	START	END	GALLONS
KILN1 QUARRY/CITY WATER TOTALIZER			
KILN 1 CAUSTIC TOTALIZER			
KILN 2 QUARRY/CITY WATER TOTALIZER			
KILN 2 CAUSTIC TOTALIZER			
SODA ASH MAKE-UP TOTALIZER			
LIME SILO LEVEL	TIME		
SODA ASH SILO LELEL	TIME		

KILN 1	OIL LEVEL OK	AMOUNT ADDED	SEAL OK
PIER 1 NE			
PIER 1 SE			
PIER 1 NW			
PIER 1 SW			
PIER 2 NE			
PIER 2 SE			
PIER 2 NW			
PIER 2 SW			

KILN 2	OIL LEVEL OK	AMOUNT ADDED	SEAL OK
PIER 1 NE			
PIER 1 SE			
PIER 1 NW			
PIER 1 SW			
PIER 2 NE			
PIER 2 SE			
PIER 2 NW			
PIER 2 SW			
PIER 3 NE			
PIER 3 SE			
PIER 3 NW			
PIER 3 SW			

NOTE PIER 1 IS DISCHARGE PIER

DO OIL DRUMS NEED TO BE EMPTIED AT KILN 2?	PIER 1	PIER 2	PIER 3
KILN 1 PIERS CLEAN			
KILN 2 PIERS CLEAN			
KILN 1 TRUNNION DRIP TRAYS CLEAN			
KILN 2 TRUNNION DRIP TRAYS CLEAN			

BULL GEAR, PINNION GEAR AND DUST SEAL INSPECTIONS

	KILN 1	KILN 2	
KILN 1 BULL GEAR GREASED AND KILN 2 OIL LEVEL KILN 2 OIL LEVEL CHECKED			WAS OIL ADDED TO KILN2 GEAR
PINION BEARINGS (EAST AND WEST) GREASED			
# OF FEED SEALS MISSING			
# OF DISCHARGE SEALS MISSING			
KILN 1 ANY MAINTENANCE REQUIRED IN THIS AREA			
KILN 2 ANY MAINTENANCE REQUIRED IN THIS AREA			

LIME FEEDERS, ROTARY VALVES AND BLOWER INSPECTION- RECORD ALL CHANGES

*USE ADDITIONAL SHEETS AS REQUIRED

FEEDING KILN	TIME	SETTING *NOT FROM WAP 2-ACTUAL SETTING*	LIME FEEDER	ROTARY VALVE	BLOWER SELECTED
KILN 1		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 2		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 1		_________lbs./hr	1 2 3	ON OFF	A B C D
KILN 2		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 1		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 2		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 1		________lbs./hr	1 2 3	ON OFF	A B C D
KILN 2		________lbs./hr	1 2 3	ON OFF	A B C D

ARE ALL LIME FEEDERS GUARDED- REPORT CONDITION
IS LIME SILO CLEAN AND FREE OF SPENT LIME- REPORT CONDITION
IS ANY MAINTENANCE REQUIRED IN THIS AREA

NAME:______________________________ DATE:_______________ SHIFT:______________

SCRUBBER SYSTEM INSPECTION

	KILN 1	KILN 2
RECYCLE PUMP RUNNING	NORTH OR SOUTH	NORTH OR SOUTH
RECYCLE PUMP LEAKING	YES OR NO	YES OR NO
BLOWDOWN PUMP LEAKING	YES OR NO	YES OR NO

KILN 1 QUENCH WATER SETTINGS	1	2	3	4
KILN 1 MIST PAD WATER SETTING		*NOTE-READINGS TO BE TAKEN AT CENTER OF FLOAT TOTAL QUENCH FLOW SHOULD BE 8 TO 10 GPM		
KILN 2 QUENCH WATER SETTINGS	1	2	3	4
KILN 2 MIST PAD WATER SETTINGS				

KILN 1 QUENCH PUMP RUNNING	YES OR NO	KILN 1 EMERGENCY QUENCH VALVES OPEN	YES OR NO
KILN 2 QUENCH PUMP RUNNING	YES OR NO	KILN 2 EMERGENCY QUENCH VALVES OPEN	YES OR NO
KILN 1 SCRUBBER- IS ANY MAINTENANCE REQUIRED IN THIS AREA?			
KILN 2 SCRUBBER- IS ANY MAINTENANCE REQUIRED IN THIS AREA?			

SODA ASH BUILDING

		KILN 1	KILN 2	TIME	CONCENTRATION
NORTH PUMP FEEDING KILN IS PUMP LEAKING	YES NO				
SOUTH PUMP FEEDING KILN IS PUMP LEAKING	YES NO				
SODA ASH SCREW-REPORT CONDITION ARE ALL COVERS IN PLACE ARE ALL GUARDS IN PLACE	 YES NO YES NO				
SODA ASH MIXERS RUNNING- REPORT CONDITION					
IS ANY MAINTENANCE REQUIRED IN THIS AREA					

HEAT EXCHANGER FANS, PRIMARY AIR FANS, KILN 2 DRIVE AND SILO HEAT INSPECTION

KILN 1 UPPER HEAT EXCHANGER FAN GREASED	YES NO	KILN 1 LOWER HEAT EXCHANGER FAN GREASED	YES NO
KILN 2 HEAT EXCHANGER FAN GREASED	YES NO	KILN 1 LOWER (OLD) FAN RUNNING	YES NO
KILN 1 UPPER(NEW) FAN SETPOINT	HZ	KILN 2 MAIN DRIVE SETPOINT	HZ
KILN 2 HEAT EXCHANGER SETPOINT	HZ	K1 SHALE SILO HEAT RUNNING	YES NO
KILN 1 PRIMARY AIR FAN SETPOINT	HZ	IS ANY MAINTENANCE REQUIRED IN THESE AREAS?	
KILN 2 PRIMARY AIR FAN SETPOINT	HZ		

NAME:_____ DATE:_____ SHIFT:_____

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RAW SHALE BELTS INSPECTION

	KILN 1 TOP	KILN 1 BOTTOM	KILN 2 TOP	KILN 2 MIDDLE	KILN 2 BOTTOM
SHALE BELTS AND SPLICES IN WORKING CONDITION	YES NO	YES NO	YES NO	YES NO	YES NO
ROLLERS AND RETURNS IN WORKING CONTITION	YES NO	YES NO	YES NO	YES NO	YES NO
WIPERS IN PLACE AND IN GOOD CONDITION	YES NO	YES NO	YES NO	YES NO	YES NO
HEAD PULLEYS AND TAIL PULLEYS GREASED	YES NO	YES NO	YES NO	YES NO	YES NO
KILN 1 ALL CONVEYOR COVERS AND GUARDS IN PLACE	YES NO	YES NO	YES NO	YES NO	YES NO
KILN 2 ALL CONVEYOR COVERS AND GUARDS IN PLACE			YES NO	YES NO	YES NO

ROTARY VALVE- SHALE FEED FOR KILN 1 REPORT CONDITION	ARE GUARDS IN PLACE	YES NO
ROTARY VALVE- SHALE FEED FOR KILN 2 REPORT CONDITION	ARE GUARDS IN PLACE	YES NO
ACCURATE FEEDER FOR KILN 1 REPORT CONDITION	ARE GUARDS IN PLACE	YES NO
ACCDURATE FEEDER FOR KILN 2 REPORT CONDITION	ARE GUARDS IN PLACE	YES NO
KILN 1 SHALE FEED- IS ANY MAINTENANCE REQUIRED IN THIS AREA		
KILN 2 SHALE FEED- IS ANY MAINTENANCE REQUIRED IN THIS AREA		

COOLER SYSYTEM AND COOLER FAN INSPECTION

COOLERS AND COOLER FANS	KILN 1	KILN 2
COOLER DRIVE SYSTEM GREASED	YES NO	YES NO
BARRON EXHAUST SYSTEM GREASED	YES NO	YES NO
EAST COOLER FAN GREASED	YES NO	YES NO
WEST COOLER FAN GREASED	YES NO	YES NO
KILN COOLER AREAS CLEANED	YES NO	YES NO
COOLER SCREWS RUNNING NORTH	YES NO	YES NO
COOLER SCREW RUNNING SOUTH	YES NO	YES NO
DUST DRUMS EMPTIED	YES NO	YES NO
KILN 1 COOLER- IS ANY MAINTENANCE REQUIRED IN THIS AREA		
KILN 2 COOLER- IS ANY MAINTENANCE REQUIRED IN THIS AREA		

NAME:_____ DATE:_____ SHIFT:_____

CLINKER BELTS AND TUNNEL INSPECTION

`

	KILN 1	KILN 2
BELTS AND SPLICES IN GOOD CONDITION	YES NO	YES NO
HEAD PULLEYS AND TAIL PULLEYS GREASED AND GUARDED	YES NO	YES NO
ROLLERS AND RETURN IN GOOD CONDITION AND GUARDED	YES NO	YES NO
WIPERS IN PLACE AND IN GOOD CONDITION	YES NO	YES NO
PUMP IN TUNNEL IN GOOD CONDITION	YES NO	YES NO
WAS PUMP CHANGED OUT ON YOUR SHIFT	YES NO	YES NO
CLINKER BELT WATER SPRAYS	ON OFF	ON OFF
CLINKER BELT HEAD BOX WATER SPRAYS	ON OFF	ON OFF
TUNNEL CLEAN AT START OF SHIFT	YES NO	YES NO
TUNNEL CLEAN AT END OF SHIFT	YES NO	YES NO
ALL CONVEYOR COVERS IN PLACE	YES NO	YES NO
KILN 1 – ANY MAINTENANCE REQUIRED IN THIS AREA		
KILN 2- ANY MAINTENANCE REQUIRED IN THIS AREA		

AIR COMPRESSORS AND PORTABLE AIR COMPRESSORS

	KILN 1	KILN 2
OIL LEVEL CHECKED	YES NO	YES NO
HOW MUCH OIL WAS ADDED		
AIR COMPRESSOR TEMP		
AIR DRYERS AND AFTERCOOLERS WORKING	YES NO	YES NO
DRYER RELIEF VALVE WORKING PROPERLY	YES NO	YES NO
PORTABLE COMPRESSOR RUNNING	YES NO	YES NO
FLUIDS CHECKED IN PORTABLE	YES NO	YES NO
PORTABLE RE-FUELED FOR NEXT SHIFT	YES NO	YES NO
ANY MAINTENANCE REQUIRED IN THIS AREA		

NAME:_____ DATE:_____ SHIFT:_____

FUEL FARM SHIFT REPORT

DATE:_____ SHIFT:_____ OPERATOR:_____

TIME				
I. TANK LEVELS				
TK 3 (INCHES)				
TK 4 (INCHES)				
TK 5 (INCHES)				
TK 6 (INCHES)				
TK 100A (GAL)				
TK 100B (GAL)				
TK 100C (GAL)				
TK 102B (GAL)				
TK 200A (GAL)				
TK 200B (GAL)				
TK 200C (GAL)				
KILN OIL TANK (FEET-INCHES)				
II. SWITCHED TANKS	**TIME**	**FROM**	**TO**	**FEED PUMP PRESSURE (PSIG)**
III. OTHER TANKS				
FIRE DAY TK LEVEL				
NITROGEN TK LEVEL				
HEATER DAY TK LEVEL				
COMMENTS: (ANY LEAKS, ODD NOISES, HIGH PRESSURES, PROBLEMS, ETC.)				

SUPERVISORS SIGNATURE: _____

FUEL FARM OPERATOR'S PRE-SHIFT & DAILY INSPECTION REPORT

DATE: _____ ***INSPECTED BY:*** _____

ITEM	OK / YES	OK / NO	STATUS	ACTION NEEDED OR TAKEN
LOWER PAD				
Pump 3				
Pump 4				
Pump 5				
Pump 6				
Tank 3 Circulators				
Tank 4 Circulators				
Tank 5 Circulators				
Tank 6 Circulators				
Pipe, Valves, Fittings				
Drip Pans				
Fire Extinguisher (2)				
Housekeeping				
Tank Pressure-300				
Tank Pressure-400				
Tank Pressure-500				
Tank Pressure-600				
Lights				
Other Remarks:				
LGF STORAGE BUILDING				
Pump 100A				
Pump 100B				
Pump 100C				
Pump 200A			OPERATIONALLY	OUT OF SERVICE
Pump 200B				
Pump 200C				
Pipe, Valves, Fittings				
Sump Level				
Fire Extinguisher (2)-Upper Level				
Eye/Body Wash-Upper Level				
Fire blanket (1)-Upper Level				
Fire Extinguishers (2)-Lower Level				
Eye/Body Wash-Lower Level				

FUEL FARM OPERATOR'S PRE-SHIFT & DAILY INSPECTION REPORT

DATE: _____ ***INSPECTED BY:*** _____

ITEM	OK / YES	OK / NO	STATUS	ACTION NEEDED OR TAKEN
LGF STORAGE BUILDING				
TANK Pressure 100A				
TANK Pressure 100B				
TANK Pressure 100C				
TANK Pressure 200A				
TANK Pressure 200B				
TANK Pressure 200C				
HouseKeeping				
Aisleways Clear				
Lights				
Other Remarks:				
GROUNDS				
Fence and Gates				
Signs Maintained				
Trash Cans Empty				
Spill Station				
Travelways Clear				
Lights				
Other Remarks:				
BREAK ROOM				
Housekeeping				
Free of LGF Hazards				
Other Remarks:				
TANKER STAGING AREA				
Storm Water Removed				
Free of Contamination Leaks				
Other Remarks:				

F-4

FUEL FARM OPERATOR'S PRE-SHIFT & DAILY INSPECTION REPORT

DATE: _____ ***INSPECTED BY:*** _____

ITEM	OK / YES	OK / NO	STATUS	ACTION NEEDED OR TAKEN
OFFLOADING PAD				
Pump 104				
Pump 204				
Fuel Oil Pump 107				
Muffin Monsters				
Offloading Filters				
Hoses				
Housekeeping				
Hazard Drums (# of)				
Non Hazardous Drums (# of)				
Fire Extinguisher				
Lights				
Other Remarks:				
DRUM STORAGE BLDG.				
Housekeeping				
Hazard Drums (# of)				
Non Hazardous Drums (# of)				
Fire Extinguisher (3)				
Fire Blanket (1)				
Eye/Body Wash				
Proper Aisle Space				
Proper Stacking				
Proper Labeling				
Lights				
Other Remarks:				
FUEL OIL TANK AREA				
Housekeeping				
East Pump				
West Pump				
Pipe, Valves, Fittings				
Fire Extinguisher (1)				
Lights				
Other Remarks:				

F-4

FUEL FARM OPERATOR'S PRE-SHIFT & DAILY INSPECTION REPORT

DATE: _____ ***INSPECTED BY:*** _____

ITEM	OK / YES	OK / NO	STATUS	ACTION NEEDED OR TAKEN
UTILITY BUILDING OUTSIDE				
Fire Extinguisher (2)				
Lights				
UTILITY BUILDING-BOILER ROOM				
Housekeeping				
Boilers				
Pressure Washer				
Other Remarks:				
UTILITY BUILDING - MCC ROOM				
Housekeeping				
All Electrical Covers Closed				
Fire System Panel				
Fuel Oil Leak Detector				
Tank Oxygen Monitor				
02/LEL System				
Other Remarks:				
UTILITY BUILDING-FIRE SYSTEM ROOM				
Housekeeping				
Other Remarks:				
OTHER				
Other Remarks:				

BURNER OPERATORS LOG

KILN _____ *BURNER* _____ *SHIFT* A B C D *DATE* ____ / ____ / ____

	KILN											COOLER				
TIME	CLINKER WT LBS	FEEDER SETTING TPH	STONE TEMP ^{0}F	FLAME TEMP ^{0}F	BACKEND TEMP ^{0}F	KILN HOOD PRESSURE "WC	LGF GPM	WASTE OIL GPM	WATER GPM	NATURAL GAS	ATOM AIR PSI	COOLER SPEED	EAST COOLER FAN	WEST COOLER FAN	FRONT BARRON SPEED	FRONT BARRON AMPS
7:00																
8:00																
9:00																
10:00																
11:00																
12:00																
13:00																
14:00																
15:00																
16:00																
17:00																
18:00																

	SCRUBBER							BAGHOUSE					HEAT EXCHANGER/MC			
TIME	QUENCH TEMP ^{0}F	pH	RECYCLE FLOW GPM	VENTURI D.P. "WC	DUCON D.P. "WC	I.D.FAN AMPS	I.D.FAN SPEED	INLET TEMP ^{0}F	DIFF PSI "WC	OXYGEN %	CO CNT PPM	LIME FEED ON / OFF	HX D.P. "WC	HX EXIT TEMP	M.C. DIFF PSI "WC	DILUTION DAMPER %
7:00																
8:00																
9:00																
10:00																
11:00																
12:00																
13:00																
14:00																
15:00																
16:00																
17:00																
18:00																

KILN	END			END		**AVERAGE**	**REMARKS**	
RAW	START		**GAS**	START		**WEIGHT** _____		
SHALE	TOTAL			TOTAL				

BURNER OPERATORS LOG

KILN _____ *BURNER* _____ *SHIFT* A B C D *DATE* ____/____/____

	KILN											COOLER				
TIME	CLINKER WT LBS	FEEDER SETTING TPH	STONE TEMP ^{0}F	FLAME TEMP ^{0}F	BACKEND TEMP ^{0}F	KILN HOOD PRESSURE "WC	LGF GPM	WASTE OIL GPM	WATER GPM	NATURAL GAS	ATOM AIR PSI	COOLER SPEED	EAST COOLER FAN	WEST COOLER FAN	FRONT BARRON SPEED	FRONT BARRON AMPS
19:00																
20:00																
21:00																
22:00																
23:00																
0:00																
1:00																
2:00																
3:00																
4:00																
5:00																
6:00																

	SCRUBBER							BAGHOUSE					HEAT EXCHANGER/MC			
TIME	QUENCH TEMP ^{0}F	pH	RECYCLE FLOW GPM	VENTURI D.P. "WC	DUCON D.P. "WC	I.D.FAN AMPS	I.D.FAN SPEED	INLET TEMP ^{0}F	DIFF PSI "WC	OXYGEN %	LIME FEED ON / OFF	CO HRA PPM	HX D.P. "WC	HX EXIT TEMP	M.C. DIFF PSI "WC	DILUTION DAMPER %
19:00																
20:00																
21:00																
22:00																
23:00																
0:00																
1:00																
2:00																
3:00																
4:00																
5:00																
6:00																

KILN	END			END		**AVERAGE**	**REMARKS**
RAW	START		**GAS**	START		**WEIGHT** _____	
SHALE	TOTAL			TOTAL			

WEEKLY ENVIRONMENTAL (RCRA) INSPECTION REPORT

Date & Time: _____ Inspector(s): _____

Area: Fuel Farm Supervisor(s): _____

Attention Supervisor- You are required to review and correct this list. Completed form must be returned to the Compliance Dept. for filing (Permit Required).

ITEM	ACCEPTABLE[1] YES	ACCEPTABLE[1] NO	STATUS (or OBSERVATION)[2]			ACTION
A. PUMP PAD - TANKS 3 & 4						
A1. Secondary Containment	X					
A2. Drip Pans	X					
A3. Housekeeping	X					
A4. Pumps	X					
A5. Valves	X					
A6. Piping / Fittings	X					
A7. Fire Extinguisher (1)	X					
B. PUMP PAD - TANKS 5 & 6						
B1. Secondary Containment	X					
B2. Drip Pans	X					
B3. Housekeeping	X					
B4. Pumps	X					
B5. Valves	X					
B6. Piping / Fittings	X					
B7. Fire Extinguisher (1)	X					
C. TANKS 3-6 GROUND COVER						
C1. Vegetation	X					
C2. Erosion	X					
C3. Housekeeping	X					
D. SECURITY						
D1. Fencing	X					
D2. Signs and Locks	X					
E. CONTAINER STORAGE AREA			Unloading Pad	Drum Room	IN USE	
E1. # of Non-haz drums	X		0	0		
E2. # of Haz Drums	X		0	0	0	
E3. (Max. 214 haz drums)	X					0
E4. Corrosion/Leakage	X					
E5. Drainage	X					
E6. Container Pad	X					
E7. Housekeeping	X					
E8. Signs / Labeling	X					
E9. Fire Extinguishers (3)	X					
F. TANKER UNLOADING AREA #1 (north)						
F1. Concrete Pad	X					
F2. Pumps	X					
F3. Piping / Fittings	X					
F4. Valves	X					
F5. Safety Shower (1)	X					
F6. Housekeeping	X					
Fa. TANKER UNLOADING AREA #2						
Fa1. Concrete Pad	X					
Fa2. Pumps	X					
Fa3. Piping / Fittings	X					
Fa4. Valves	X					
Fa5. Housekeeping	X					
G. TANKER STAGING AREA						
G1. Spills/Stains on Ground	X					
G2. Condition of Contained Water	X					
G3. Housekeeping	X					

[1] Note: If both YES and NO are checked, the item is considered to be marginally acceptable.

[2] If an item is acceptable (only YES checked) an entered observation does not imply a need for corrective action.

WEEKLY ENVIRONMENTAL (RCRA) INSPECTION REPORT

Date & Time: _____ **Inspector(s):** _____

Area: Fuel Farm **Supervisor(s):** _____

Attention Supervisor- You are required to review and correct this list. Completed form must be returned to the Compliance Dept. for filing (Permit Required).

ITEM	ACCEPTABLE[1] YES	ACCEPTABLE[1] NO	STATUS (or OBSERVATION)[2]	ACTION
H. ROLL-OFF CONTAINERS				
H1. Condition of Containers	X			
H2. Absence of Spills	X			
H3. Covered	X			
H4. Labels	X			
H5. Haz. Quantity (Max 160 cu yds)	X			
I. LGF STORAGE BUILDING				
I1. Tank 100A	X			
I2. Tank 100B	X			
I3. Tank 100C	X			
I4. Tank 200A	X			
I5. Tank 200B	X			
I6. Tank 200C	X			
I7. Pump 100A	X			
I8. Pump 100B	X			
I9. Pump 100C	X			
I10. Pump 200A	X			
I11. Pump 200B	X			
I12. Pump 200C	X			
I13. Grated Trench & Sump	X			
I14. Secondary Containment	X			
I15. Housekeeping	X			
I16. Pipes, Valves, & Fittings	X			
I17. Fire Extinguishers (5)	X			
I18. Safety Shower (outside bldg.)	X			
J. LGF PIPE BRIDGE & TUNNEL				
J1. Piping / Fittings	X			
J2. Fire Extinguishers (3)	X			
J3. Safety Showers (2)	X			
J4. Housekeeping	X			
K. FUEL OIL STORAGE TANK AREA				
K1. Physical Condition of Tank	X			
K2. Cracks, Corrosion, Thinning?	X			
K3. Pipes, Valves, & Pumps	X			
K4. Housing & Foundation Integrity	X			
K5. Housekeeping	X			
K6. Leak detection devices (located in utility building)	X			
K7. Fire Extinguishers (2)	X			
Ka. F, M, R TANKS				
Ka1. Condition of Tanks	X			
Ka2. Cracks, Corrosion, Thinning?	X			
Ka3. Pipes, Valves, & Pumps	X			
Ka4. Containment Condition	X			
Ka5. Housekeeping	X			

COMMENTS:

[1] Note: If both YES and NO are checked, the item is considered to be marginally acceptable.

[2] If an item is acceptable (only YES checked) an entered observation does not imply a need for corrective action.

WEEKLY ENVIRONMENTAL (RCRA) INSPECTION REPORT

Date & Time: _____ **Inspector(s):** _____

Area: Kiln Area **Supervisor(s):** _____

Attention Supervisor(s)- You form must be returned to the Compliance Dept. for filing. (Permit Required)

ITEM	ACCEPTABLE[1] YES		NO		STATUS (or OBSERVATION)[2]	ACTION
L. BAGHOUSE	K1	K2	K1	K2		
L1. Structure Integrity	X	X				
L2. Piping/Fittings	X	X				
L3. Housekeeping	X	X				
M. SCRUBBER BUILDING	K1	K2	K1	K2		
M1. Containment Area	X	X				
M2. Pumps	X	X				
M3. Piping/Fittings	X	X				
M4. Valves	X	X				
M5. Housekeeping	X	X				
N. KILN	K1	K2	K1	K2		
N1. Backend Seal	X	X				
N2. No Dust or Emissions?	X	X				
N3. Trunnions	X	X				
N4. Not Leaking Oil on Ground?	X	X				
N5. Drip Pans in use? (if needed)	X	X				
N6. Shell	X	X				
O. BURNER FLOOR AREA	K1	K2	K1	K2		
O1. Piping, Fittings, & Valves	X	X				
O2. Pumps	X	X				
O3. Fire Extinguishers (1 ea. area)	X	X				
O4. Safety Shower (removed)	X	X				
O5. Housekeeping	X	X				
P. EXTRUDER ROOM						
P1. Housekeeping	X					
P2. Piping/Fittings	X					
P3. Drums	X					
P4. Number of Haz. Drums	n/a					
P5. Number of Non-Haz Drums	n/a					
Q. EQUALIZATION TANKS						
Q1. Tank 101A	X					
Q2. Tank 101B	X					
Q3. Tank 102A	X					
Q4. Tank 102B	X					
COMMENTS:						

[1] Note: If both YES and NO are checked, the item is considered to be marginally acceptable.

[2] If an item is acceptable (only YES checked) an entered observation does not imply a need for corrective action.

WEEKLY ENVIRONMENTAL (RCRA) INSPECTION REPORT

Date & Time: _____ **Inspector(s):** _____
Area: Kiln Area **Supervisor(s):** _____

Attention Supervisor(s)- You are required to review and correct this list. Completed form must be returned to the Compliance Dept. for filing. (Permit Required)

ITEM	ACCEPTABLE[1] YES	ACCEPTABLE[1] NO	STATUS (or OBSERVATION)[2]	ACTION
R. EQUALIZATION AREA				
R1. Sump in Basement	X			
R2. Secondary Containment	X			
R3. Pumps & Valves	X			
R4. Safety Shower (1)	X			
R5. Piping/Fittings	X			
R6. Fire Extinguishers (4)	X			
R7. Housekeeping	X			
R8. Drum Storage Area (<55 gals.)	X			
S. TUNNEL FIRE/LEL/O2 MONITOR AND CONTROL SYSTEM (located in k1 control room)				
S1. Fire Protection Device	X			
S2. Smoke Detector	X			
S3. Oxygen and LEL Monitors	X			
S4. Automated AFFF System	X			
S5. Latest Calibration (Quarterly):	X			
T. KILN #1 GAS ROOM				
T1. Piping/Fittings	X			
T2. Housekeeping	X			
T3. Containment Pad	X			
U. WASTEWATER TREATMENT AREA				
U1. Pumps & Valves	X			
U2. Piping/Fittings	X			
U3. Containment Area	X			
U4. Fire Extinguisher (1)	X			
U5. Housekeeping	X			
V. DUST STORAGE SILOS				
V1. External Condition	X			
V2. Absence of Spills	X			
V3. Pipings/Fittings	X			
V4. Bag Vent Functional	X			
COMMENTS:				

Date & Time: _____ **Inspector(s):** _____
Area: Laboratory **Supervisor(s):**

ITEM	ACCEPTABLE[1] YES	ACCEPTABLE[1] NO	STATUS (or OBSERVATION)[2]	ACTION
W. LABORATORY				
W1. Condition of Containers	X			
W2. Condition of Labels	X			
W3. Absence of Spills / Leaks	X			

Date & Time: _____ **Inspector(s):** _____
Area: Plant

ITEM	ACCEPTABLE[1] YES	ACCEPTABLE[1] NO	STATUS (or OBSERVATION)[2]	ACTION
X. UNIVERSAL WASTE STORAGE				
X1. Containers Labeled / Dated	X			
X2. Containers Closed	X			

[1] Note: If both YES and NO are checked, the item is considered to be marginally acceptable.
[2] If an item is acceptable (only YES checked) an entered observation does not imply a need for corrective action.

Production Manager _____ Laboratory Manager _____
Environmental Manager _____ Fuel Farm Manager _____

INSPECTION LOG

DATE OF INSPECTION: _____ TIME: _____

INSPECTORS:

Print Name	Signature	Dept.

FINDINGS/COMMENTS	CORRECTIVE ACTIONS	COMPLETED
1.		
2.		
3.		
4.		

ADDITIONAL FOLLOW-UP INFORMATION