PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 1-4726-00490/00011
Effective Date: 09/18/2013  Expiration Date: 09/17/2023

Permit Issued To: 110 SAND CO
170 CABOT ST
WEST BABYLON, NY 11704

BROAD HOLLOW ESTATES INC
C/O 110 SAND CO
170 CABOT ST
WEST BABYLON, NY 11704-1102

Contact: JASON GOLDEN
110 SAND COMPANY
170 CABOT ST
WEST BABYLON, NY 11704
(631) 249-4108

Facility: 110 SAND CLEAN FILL DISPOSAL SITE
136 BETHPAGE-SPAGNOLI RD
MELVILLE, NY 11747

Contact: JASON GOLDEN
110 SAND COMPANY
170 CABOT ST
WEST BABYLON, NY 11704
(631) 249-4108

Description:
This permit is for the renewal of the Air State Facility Permit for the landfill gas collection and flare system at the Clean Fill Disposal Site operated by the 110 Sand Company in Melville, New York.
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 and any Special Conditions included as part of this permit.

Permit Administrator: ROGER EVANS  
NYSDEC - SUNY @ STONY BROOK  
50 CIRCLE RD  
STONY BROOK, NY 11790-3409

Authorized Signature: _________________________________ Date: ___ / ___ / _____
Notification of Other State 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 compliance 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 any 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.
LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions
Facility Inspection by the Department
Relationship of this Permit to Other Department Orders and Determinations
Applications for permit renewals, modifications and transfers
Permit modifications, suspensions or revocations by the Department

Facility Level
Submission of application for permit modification or renewal - REGION 1 HEADQUARTERS
DEC GENERAL CONDITIONS

***** General Provisions *****

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:
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).

Item 1.2:
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:
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 or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:
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.

Condition 3: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:
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.

Item 3.2:
The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:  
The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR 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.

**** Facility Level ****

Condition 5: Submission of application for permit modification or renewal - REGION 1  
HEADQUARTERS  
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:  
Applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 1 Headquarters  
Division of Environmental Permits  
Stony Brook University  
50 Circle Road  
Stony Brook, NY 11790-3409  
(631) 444-0365
Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY

IDENTIFICATION INFORMATION

Permit Issued To: 110 SAND CO
170 CABOT ST
WEST BABYLON, NY 11704

BROAD HOLLOW ESTATES INC
C/O 110 SAND CO
170 CABOT ST
WEST BABYLON, NY 11704-1102

Facility: 110 SAND CLEAN FILL DISPOSAL SITE
136 BETHPAGE-SPAGNOLI RD
MELVILLE, NY 11747

Authorized Activity By Standard Industrial Classification Code:
4953 - REFUSE SYSTEMS

Permit Effective Date: 09/18/2013  Permit Expiration Date: 09/17/2023
LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

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Emission Unit Level

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EU=U-00001

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*8 6 NYCRR Subpart 201-7: Capping Monitoring Condition
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*10 6 NYCRR Subpart 201-7: Capping Monitoring Condition

STATE ONLY ENFORCEABLE CONDITIONS

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Emission Unit Level

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EU=U-00001

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NOTE: * preceding the condition number indicates capping.
FEDERALLY ENFORCEABLE CONDITIONS

**** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5
The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6
Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7
Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,
required to operate such device effectively.

**Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2**

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

**Item E: Emergency Defense - 6 NYCRR 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.
(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item F: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item G: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item H: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: Required Emission Tests - 6 NYCRR 202-1.1
An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: **Open Fires Prohibitions - 6 NYCRR 215.2**
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item L: **Permit Exclusion - ECL 19-0305**
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: **Federally Enforceable Requirements - 40 CFR 70.6 (b)**
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**FEDERAL APPLICABLE REQUIREMENTS**
The following conditions are federally enforceable.

**Condition 1: Required Emissions Tests**
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR 202-1.1

Item 1.1:
For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.

Condition 2: Facility Permissible Emissions
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

Item 2.1:
The sum of emissions from the emission units specified in this permit shall not equal or exceed the following Potential To Emit (PTE) rate for each regulated contaminant:

<table>
<thead>
<tr>
<th>CAS No: 007446-09-5</th>
<th>PTE: 180,000 pounds per year</th>
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</thead>
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<tr>
<td>Name: SULFUR DIOXIDE</td>
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</tbody>
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Condition 3: Notification
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR 202-1.2

Item 3.1:
A person who is required by the commissioner to submit a stack test report shall notify the commissioner, in writing, not less than 30 days prior to the test, of the time and date of the test. Such notification shall also include the acceptable procedures to be used to stack test including sampling and analytical procedures. Such person shall allow the commissioner, or his representative, free access to observe stack testing being conducted by such person.

Condition 4: Air pollution prohibited
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR 211.1

Item 4.1:
No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.
**** Emission Unit Level ****

**Condition 5:** Emission Unit Permissible Emissions
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

**Item 5.1:**
The sum of emissions from all regulated processes specified in this permit for the emission unit cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001

CAS No: 007446-09-5
Name: SULFUR DIOXIDE
PTE(s): 315 pounds per hour 180,000 pounds per year

**Condition 6:** Process Permissible Emissions
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

**Item 6.1:**
The sum of emissions from the regulated process cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001  Process: P01

CAS No: 007446-09-5
Name: SULFUR DIOXIDE
PTE(s): 315 pounds per hour 180,000 pounds per year

**Condition 7:** Capping Monitoring Condition
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable Federal Requirement: 6 NYCRR Subpart 201-7

**Item 7.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 7.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission
limits, terms, conditions and standards in this permit.

Item 7.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 7.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 7.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 7.6:
The Compliance Demonstration activity will be performed for:

   Emission Unit: U-00001

   Regulated Contaminant(s):
   CAS No: 007446-09-5 SULFUR DIOXIDE

Item 7.7:
Compliance Demonstration shall include the following monitoring:

   Capping: Yes
   Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
   Monitoring Description:
   The SO2 emissions shall not exceed 90 tons per year based on a 12-month rolling average. The H2S concentrations will be measured using draeger tubes twice daily, excluding Sundays and holidays, at both the inlet and the outlet of the THIOPAQ sulfur removal unit. The Thiopaq may come offline for maintenance reasons, in which case the flare will still be operating on a continuous basis. The H2S concentrations will be used to calculate SO2 emissions using the following formula:

   12-month rolling average mass emission rate of Sulfur Dioxide:

   SO2 (Lb/year) = Sum of monthly average SO2 mass emission rate, SO2 (Lb/month) for previous 12 months
Monthly average mass emission rate of Sulfur Dioxide:

\[ \text{SO}_2 (\text{Lb/month}) = \text{Sum of hourly SO}_2 \text{ mass emission rates, SO}_2 (\text{Lb/hour}) \text{ for previous calendar month} \]

Mass emission rate of Sulfur Dioxide shall be determined by using the following formula:

\[ \text{SO}_2 (\text{Lb/hr}) = \left( \frac{\text{H}_2\text{S}}{10^6} \right) \times \left( \frac{1 \text{ mole of SO}_2}{1 \text{ mole of H}_2\text{S}} \right) \times 
\left( \frac{64.06 \text{ lb of SO}_2/\text{lb-mole of SO}_2}{1 \text{ lb-mole}} \right) \times \left( \frac{64 \text{ lb of SO}_2}{385.3 \text{ ft}^3/\text{lb-mole}} \right) \times \text{VFR} \]

Where

- \( \text{H}_2\text{S} \) = Most recently available measured concentration of \( \text{H}_2\text{S} \) (ppmvd)
- \( \text{VFR} \) = Volumetric flow rate in (ft\(^3\)/hr) as continuously measured applying EPA approved Method 2 for flow measurement

1. In absence of flow measurement, use design specific flow rate (ft\(^3\)/hr)
2. If unit is offline, use VFR=0 for reporting purposes

Manufacturer Name/Model Number: THIOPAQ
Parameter Monitored: SULFUR DIOXIDE
Upper Permit Limit: 90 tons per year
Reference Test Method: Method 5
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).

**Condition 8:** Capping Monitoring Condition
Effective between the dates of 09/18/2013 and 09/17/2023

**Applicable Federal Requirement:** 6 NYCRR Subpart 201-7

**Item 8.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 8.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission
limits, terms, conditions and standards in this permit.

**Item 8.3:**
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 8.4:**
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 8.5:**
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 8.6:**
The Compliance Demonstration activity will be performed for:

- Emission Unit: U-00001
- Regulated Contaminant(s):
  - CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 8.7:**
Compliance Demonstration shall include the following monitoring:

- Capping: Yes
- Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
- Monitoring Description:
  - The SO2 mass emission rate will not exceed 315lb/hr. The Thiopaq may come offline for maintenance reasons in which case the flare will still be operating on a continuous basis. Compliance will be demonstrated by monitoring and recording the H2S concentrations periodically and landfill gas flow rate on a continuous basis. The H2S concentrations will be measured using draeger tubes twice daily, excluding Sundays and holidays, at both the inlet and the outlet of the THIOPAQ sulfur removal unit. In addition, the H2S concentration values will be verified on a monthly basis at the outlet using an Industrial Scientific Instrument Model HS 267 dual alarm, continuous Hydrogen Sulfide monitor.

The SO2 emission limit shall be determined by using the following formula:
SO2 (lb/hr) = (H2S/10e-6) * (1 mole of SO2/1 mole of H2S) *
(64.06 lb of SO2/Lb-mole of SO2) * (Lb-mole/ 385.3
ft^3/lb-mole) * VFR

Where

H2S = Most recently available measures concentration of
H2S (ppmvd)
VFR = Volumetric flow rate in (ft^3/hr) as continuously
measured applying EPA approved Method 2 for flow
measurement.

1. In absence of flow measurement, use design specific
flow rate (ft^3/hr)
2. If unit is offline, use VFR=0 for reporting purposes

Manufacturer Name/Model Number: THIOPAQ
Parameter Monitored: SULFUR DIOXIDE
Upper Permit Limit: 315 pounds per hour
Reference Test Method: Method 5
Monitoring Frequency: DAILY
Averaging Method: 24-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).

**Condition 9:** Capping Monitoring Condition
Effective between the dates of 09/18/2013 and 09/17/2023

**Applicable Federal Requirement:** 6 NYCRR Subpart 201-7

**Item 9.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the
purpose of limiting emissions from the facility, emission unit or process to avoid being subject to
the following applicable requirement(s) that the facility, emission unit or process would
otherwise be subject to:

6 NYCRR Subpart 201-6

**Item 9.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission
limits, terms, conditions and standards in this permit.

**Item 9.3:**
The owner or operator of the permitted facility must maintain all required records on-site for a
period of five years and make them available to representatives of the Department upon request.
Department representatives must be granted access to any facility regulated by this Subpart,
during normal operating hours, for the purpose of determining compliance with this and any
other state and federal air pollution control requirements, regulations or law.
Item 9.4:  
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 9.5:  
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 9.6:  
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Regulated Contaminant(s):
  CAS No: 007446-09-5  SULFUR DIOXIDE

Item 9.7:  
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
The landfill gas flow rate to the flare shall not exceed 6170 cfm averaged over a 24-hour period for the operating hours. The flare shall be operational at all times. The flow meter is continuously online and displays both the instantaneous flow rate in standard cubic feet per minute(SCFM) and running total in standard cubic feet (SCF*100).

Manufacturer Name/Model Number: Thermal Instrument Co. Model# 62-9/9500
Parameter Monitored: FLOW RATE
Upper Permit Limit: 6170 cubic feet per minute (standard conditions)
Reference Test Method: Flow Meter
Monitoring Frequency: CONTINUOUS
Averaging Method: 24-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 10:  Capping Monitoring Condition  
Effective between the dates of 09/18/2013 and 09/17/2023  

Applicable Federal Requirement: 6 NYCRR Subpart 201-7
Item 10.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 10.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 10.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 10.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 10.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 10.6:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 10.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
A temperature of at least 1400 degrees F must be maintained in the flare stack. Compliance will be demonstrated by monitoring and recording temperature in the flare stack on a continuous basis.

Manufacturer Name/Model Number: John Zink Company LLC
Parameter Monitored: TEMPERATURE
Lower Permit Limit: 1400 degrees Fahrenheit
Reference Test Method: Temperature Control Thermocouples
Monitoring Frequency: CONTINUOUS
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).
STATE ONLY ENFORCEABLE CONDITIONS

**** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)
Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5
Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state only enforceable.

Condition 11: Contaminant List
Effective between the dates of 09/18/2013 and 09/17/2023
Applicable State Requirement: ECL 19-0301

Item 11.1:
Emissions of the following contaminants are subject to contaminant specific requirements in this permit (emission limits, control requirements or compliance monitoring conditions).

- CAS No: 007446-09-5
  Name: SULFUR DIOXIDE

- CAS No: 0NY075-00-5
  Name: PM-10

- CAS No: 0NY998-00-0
  Name: VOC

Condition 12: Malfunctions and start-up/shutdown activities
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable State Requirement: 6 NYCRR 201-1.4

Item 12.1:
(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.
(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 13: Emission Unit Definition
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 13.1: The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00001
Emission Unit Description:
Landfill Gas Collection and Flare System. The 110 Sand Company currently operates a landfill gas collection and flare system at the Clean Fill Disposal Site in Melville, New York. The 110 Sand Company has installed the Paques THIOPAQ® sulfur removal technology designed to limit the SO2 emissions from the flare to 90 tons per year based on a 12-month rolling average. The Thiopaq may come offline for maintenance reasons in which case the flare will still be operating on a continuous basis.

Condition 14: Renewal deadlines for state facility permits
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable State Requirement: 6 NYCRR 201-5.2 (c)

Item 14.1: The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 15: Compliance Demonstration
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable State Requirement: 6 NYCRR 201-5.3 (c)

Item 15.1: The Compliance Demonstration activity will be performed for the Facility.

Item 15.2: Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:
Division of Air Resources  
NYS Dept. of Environmental Conservation  
Region 1  
SUNY at Stony Brook  
Building 40  
Stony Brook, NY 11790-2356

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2014.  
Subsequent reports are due every 12 calendar month(s).

Condition 16: Visible Emissions Limited  
Effective between the dates of 09/18/2013 and 09/17/2023  
Applicable State Requirement: 6 NYCRR 211.2

Item 16.1:  
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 17: Compliance Demonstration  
Effective between the dates of 09/18/2013 and 09/17/2023  
Applicable State Requirement: 6 NYCRR 211.2

Item 17.1:  
The Compliance Demonstration activity will be performed for the Facility.

Item 17.2:  
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE  
Monitoring Description:  
Except as permitted by a specific part of Title 6 of the NYCRR, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Operators of air contamination sources that are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack(s) or vent(s) once per day for visible emissions. This observation(s) must be conducted...
during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- weather condition
- was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days, then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

** NOTE ** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Parameter Monitored: OPACITY
Upper Permit Limit: 57 percent
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER HOUR
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).

**** Emission Unit Level ****
Condition 18:  Emission Point Definition By Emission Unit
Effective between the dates of 09/18/2013 and 09/17/2023
Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 18.1:
The following emission points are included in this permit for the cited Emission Unit:

   Emission Unit:    U-00001

   Emission Point:  00001
   Height (ft.): 145       Diameter (in.): 72
   NYTMN (km.): 4514.828  NYTME (km.): 631.864

Condition 19:  Process Definition By Emission Unit
Effective between the dates of 09/18/2013 and 09/17/2023
Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 19.1:
This permit authorizes the following regulated processes for the cited Emission Unit:

   Emission Unit:    U-00001
   Process: P01
   Process Description:  Landfill Gas Collection System.
                         ES001 is a process-Piping and Blower system manufactured
                         by 110 Sand Company.
                         ES002 is a control-Flaring manufactured by John Zink
                         Company LLC.
                         ES003 is a control-Gas Scrubber manufactured by
                         Paques(THIOPAQ).

   Emission Source/Control:  ES002 - Control
   Control Type: FLARING

   Emission Source/Control:  ES003 - Control
   Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

   Emission Source/Control:  ES001 - Process

Condition 20:  Compliance Demonstration
Effective between the dates of 09/18/2013 and 09/17/2023
Applicable State Requirement: 6 NYCRR 212.3

Item 20.1:
The Compliance Demonstration activity will be performed for:

   Emission Unit: U-00001
Item 20.2: Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The emission rate potential (ERP) for particulate is less than 1.0 lb/hr. Therefore, no degree of air cleaning is required for particulate based on an Environmental Rating of B or C. Compliance was demonstrated through stack testing conducted on the flare system. No further testing will be required unless specifically requested by the department.

Parameter Monitored: PM-10
Upper Permit Limit: 1.0 pounds per hour
Reference Test Method: Method 5
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 10/30/2013.
Subsequent reports are due every 3 calendar month(s).

Condition 21: Compliance Demonstration
Effective between the dates of 09/18/2013 and 09/17/2023

Applicable State Requirement: 6 NYCRR 212.3

Item 21.1: The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC

Item 21.2: Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The emission rate potential (ERP) for VOC is less than 3.5 lb/hr. Therefore, no degree of air cleaning is required for VOC based on an Environmental Rating of B or C. Compliance was demonstrated through stack testing conducted on the flare system. No further testing will be required unless specifically requested by the
Parameter Monitored: VOC  
Upper Permit Limit: 3.5 pounds per hour  
Reference Test Method: Method 18  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 10/30/2013.  
Subsequent reports are due every 3 calendar month(s).

**Condition 22:** Compliance Demonstration  
Effective between the dates of 09/18/2013 and 09/17/2023

**Applicable State Requirement:** 6 NYCRR 212.6

**Item 22.1:**  
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

**Item 22.2:**  
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:
The facility must observe the stack once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow). The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:
- date and time of day
- observer's name
- identity of emission point
- weather condition
- was a plume observed?

If the operator observes any visible emissions (other than steam) two consecutive days, then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for review.
acceptance.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY