



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 1-4726-00490/00011  
Effective Date: 03/25/2010 Expiration Date: 03/24/2013

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

110 SAND CO  
170 CABOT ST  
WEST BABYLON, NY 11704

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

Facility: 110 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) 694-2822

**Description:**

The 110 Sand Company operates a Clean Fill Disposal Site (CFDS) in Melville, NY. This application is for an Air State Facility Permit for the installation and operation of a Paques THIOPAQ sulfur removal technology on the existing landfill gas collection and flare system. During normal operation, gas generated by the degradation of the clean fill is captured by a gas collection system. The gas is conveyed to a biological treatment system known as Thiopaq. Thiopaq is control technology, which utilizes biomass to treat the collected gas. The treated gas is then conveyed to a flare for final treatment. In the event the Thiopaq treatment system is not operational, gas is conveyed directly to the flare.

**New York State Department of Environmental Conservation**  
**Facility DEC ID: 1472600490**



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
  - 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.



**Applicable State Requirement: 6 NYCRR 621.13**

**Item 4.1:**

The Department reserves the right 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.

**Condition 5: Permit modifications, suspensions or revocations by the Department**  
**Applicable State Requirement: 6 NYCRR 621.13**

**Item 5.1:**

The Department reserves the right 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 6: Submission of application for permit modification or renewal - REGION 1 HEADQUARTERS**  
**Applicable State Requirement: 6 NYCRR 621.6 (a)**

**Item 6.1:**

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

**New York State Department of Environmental Conservation**

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY  
PERMIT**

**IDENTIFICATION INFORMATION**

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

110 SAND CO  
170 CABOT ST  
WEST BABYLON, NY 11704

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

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

Permit Effective Date: 03/25/2010

Permit Expiration Date: 03/24/2013



**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 1 6 NYCRR 202-1.1: Required Emissions Tests
- 2 6 NYCRR 211.3: Visible Emissions Limited
- 3 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- 4 6 NYCRR 202-1.2: Notification

**Emission Unit Level**

- 5 6 NYCRR Subpart 201-7: Emission Unit Permissible Emissions
- 6 6 NYCRR Subpart 201-7: Process Permissible Emissions

**EU=U-00001**

- \*7 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*8 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*9 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- \*10 6 NYCRR Subpart 201-7: Capping Monitoring Condition

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 11 ECL 19-0301: Contaminant List
- 12 6 NYCRR 201-1.4: Unavoidable noncompliance and violations
- 13 6 NYCRR Subpart 201-5: Emission Unit Definition
- 14 6 NYCRR 201-5.3 (b): Compliance Demonstration
- 15 6 NYCRR 201-5.3 (b): Compliance Plan
- 16 6 NYCRR 211.2: Air pollution prohibited
- 17 6 NYCRR 211.2: Compliance Demonstration

**Emission Unit Level**

- 18 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 19 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

**EU=U-00001**

- 20 6 NYCRR 212.3: Compliance Demonstration
- 21 6 NYCRR 212.3: Compliance Demonstration
- 22 6 NYCRR 212.6: Compliance Demonstration

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: Visible Emissions Limited - 6 NYCRR 211.3**

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.

**Item L: 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 M: 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 N: 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 03/25/2010 and 03/24/2013

**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. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

**Condition 2: Visible Emissions Limited**  
Effective between the dates of 03/25/2010 and 03/24/2013

**Applicable Federal Requirement:6 NYCRR 211.3**

**Item 2.1:**

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 3: Facility Permissible Emissions**  
Effective between the dates of 03/25/2010 and 03/24/2013

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

**Item 3.1:**

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:

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

PTE: 180,000 pounds per year

**Condition 4: Notification**  
Effective between the dates of 03/25/2010 and 03/24/2013

**Applicable Federal Requirement:6 NYCRR 202-1.2**

**Item 4.1:**

New York State Department of Environmental Conservation

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



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.

\*\*\*\* Emission Unit Level \*\*\*\*

Condition 5: Emission Unit Permissible Emissions
Effective between the dates of 03/25/2010 and 03/24/2013

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 03/25/2010 and 03/24/2013

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 03/25/2010 and 03/24/2013

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: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The SO<sub>2</sub> emissions shall not exceed 90 tons per year based on a 12-month rolling average. The H<sub>2</sub>S 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 H<sub>2</sub>S concentrations will be used to calculate SO<sub>2</sub> emissions using the formula identified later in this



monitoring description.

The SO<sub>2</sub> emission limit shall be determined by using the following formula:

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

SO<sub>2</sub> (Lb/year)=Sum of monthly average SO<sub>2</sub> mass emission rate, SO<sub>2</sub>(Lb/month), for previous 12 months)

Monthly average mass emission rate of Sulfur Dioxide:

SO<sub>2</sub> (Lb/month)=Sum of hourly SO<sub>2</sub> mass emission rates, SO<sub>2</sub>(Lb/hour), for previous calendar month)

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

SO<sub>2</sub> (Lb/hr)= (H<sub>2</sub>S/10e6) \* (1 mole of SO<sub>2</sub>/1 mole of H<sub>2</sub>S) \* (64.06 LB of SO<sub>2</sub>/Lb-mole of SO<sub>2</sub>) \* (Lb-mole/ 385.3 ft<sup>3</sup>/LB-mole) \* VFR.

Where

H<sub>2</sub>S = Most recently available measured concentration of H<sub>2</sub>S in (ppmvd)

VFR = Volumetric flow rate in (ft<sup>3</sup>/hr) as continuously measured applying EPA approved Method 2 for flow measurement.

1. In absence of flow measurements use design specific flow rate in (ft<sup>3</sup>/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

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 4/30/2010.

Subsequent reports are due every 3 calendar month(s).

**Condition 8: Capping Monitoring Condition**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**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: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The SO<sub>2</sub> 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 H<sub>2</sub>S concentration periodically and landfill



gas flow rate on a continuous basis. The H<sub>2</sub>S 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 H<sub>2</sub>S 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 SO<sub>2</sub> emission limit shall be determined by using the following formula:

$$\text{SO}_2 \text{ (Lb/hr)} = (\text{H}_2\text{S}/10\text{e}6) * (1 \text{ mole of SO}_2/1 \text{ mole of H}_2\text{S}) * (64.06 \text{ LB of SO}_2/\text{Lb-mole of SO}_2) * (\text{Lb-mole}/385.3 \text{ ft}^3/\text{LB-mole}) * \text{VFR}.$$

Where

H<sub>2</sub>S = Most recently available measures concentration of H<sub>2</sub>S in (ppmvd)

VFR = Volumetric flow rate in (ft<sup>3</sup>/hr) as continuously measured applying EPA approved Method 2 for flow measurement.

1. In absence of flow measurements use design specific flow rate in (ft<sup>3</sup>/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  
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 4/30/2010.  
Subsequent reports are due every 3 calendar month(s).

**Condition 9: Capping Monitoring Condition**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**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:**



**New York State Department of Environmental Conservation**

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Reports due 30 days after the reporting period.  
The initial report is due 4/30/2010.  
Subsequent reports are due every 3 calendar month(s).

**Condition 10: Capping Monitoring Condition**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**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:

**New York State Department of Environmental Conservation**

**Permit ID: 1-4726-00490/00011**

**Facility DEC ID: 1472600490**



Capping: Yes

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

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.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1400 degrees Fahrenheit

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 4/30/2010.

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 emission source owners and/or operators keep records pursuant to compliance with the operational flexibility requirements of 6 NYCRR Subpart 201-5.4(b)(1) , and/or the emission capping requirements of 6 NYCRR Subparts 201-7.2(d), 201-7.3(f), 201-7.3(g), 201-7.3(h)(5), 201-7.3(i) and 201-7.3(j), the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Emission source owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department of receipt of the request.

**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 03/25/2010 and 03/24/2013**

**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: Unavoidable noncompliance and violations**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 12.1:**

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment 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 commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective



action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superseded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

**Condition 13: Emission Unit Definition**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**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. The 110 Sand Company currently operates a gas collection system at the Cleanfill Disposal Site in Melville, New York. The 110 Sand Company has installed the Paques THIOPAQ sulfur removal technology designed to limit the SO<sub>2</sub> 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: Compliance Demonstration**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 201-5.3 (b)**

**Item 14.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 14.2:**

Compliance Demonstration shall include the following monitoring:

**New York State Department of Environmental Conservation**

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required in 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 @ Stony Brook  
Building 40  
Stony Brook, NY 11790-2356

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 15: Compliance Plan**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 201-5.3 (b)**

**Item 15.1:**

Compliance will be achieved according to the following schedule for the Facility:

Consent Order: R120010517

**Item 15.2:**

Remedial Measure:

Schedule Date:

The facility must comply with all the terms and conditions of the Consent Order dated 8/29/2008

**Condition 16: Air pollution prohibited**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 16.1:**

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.

**Condition 17: Compliance Demonstration**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 17.1:**

The Compliance Demonstration activity will be performed for the Facility.

**New York State Department of Environmental Conservation**

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



**Item 17.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Facility shall establish a complaint response procedure to manage complaints related to air emissions from this facility. The procedure shall be designed to ensure that complaints from officials or neighbors are adequately received and documented, and that appropriate response is taken by the facility. The facility shall:

1. Have a complaint phone line available 24 hours a day, 7 days a week.
2. Investigate any possible causes of any complaint received.
3. Take prompt action to abate any circumstance which is found to be the cause of the complaint.
4. Fully document the complaint, results of investigation, and any action taken.
5. Report in a format acceptable to the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2010.

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 03/25/2010 and 03/24/2013**

**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 03/25/2010 and 03/24/2013**

**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 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 212.3**

**Item 20.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):  
CAS No: 0NY075-00-5 PM-10

**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 will be demonstrated through stack testing of the flare system. The test should be completed within 12 months of the effective date of the permit.

Parameter Monitored: PM-10

Upper Permit Limit: 1.0 pounds per hour

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**New York State Department of Environmental Conservation**

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



**DESCRIPTION**

Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 4/30/2010.  
Subsequent reports are due every 3 calendar month(s).

**Condition 21: Compliance Demonstration**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**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 will be demonstrated through a stack test according to a protocol approved by the Department. The test should be completed within 12 months of the effective date of the permit.

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 4/30/2010.  
Subsequent reports are due every 3 calendar month(s).

**Condition 22: Compliance Demonstration**  
**Effective between the dates of 03/25/2010 and 03/24/2013**

**Applicable State Requirement:6 NYCRR 212.6**

**Item 22.1:**

The Compliance Demonstration activity will be performed for:

**New York State Department of Environmental Conservation**

Permit ID: 1-4726-00490/00011

Facility DEC ID: 1472600490



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 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

