



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility

Permit ID: 9-0624-00025/00008

Effective Date:

Expiration Date:

Permit Issued To: SEALAND WASTE LLC
85 HIGH TECH DR
RUSH, NY 14543

Contact: JAMES DAIGLER
DAIGLER ENGINEERING, PC
2620 GRAND ISLAND BLVD
GRAND ISLAND, NY 14072
(716) 773-6872

Facility: CARROLL C & D MANAGEMENT FACILITY
309 Dodge Rd
Frewsburg, NY 14738

Description:

- (1) Sealand Waste, LLC proposes to construct, operate, close and monitor a 34.9-acre double composite liner system landfill for the disposal of Construction and Demolition (C&D) debris. The waste volume of the proposed landfill is approximately 5,345,000 cubic yards with a permitted waste acceptance rate of 1,000 tons per day resulting in a site life of approximately 13 years. The site is identified as the Carroll C&D Management Facility located on Dodge Road in the Town of Carroll, Chautauqua County, New York.
- (2) The proposed project area includes an existing closed 3-acre C&D landfill identified as the former Jones-Carroll C&D Landfill. The facility plans to remove the approximate 53,000 cubic yards of existing waste from the three-acre footprint of the former Jones-Carroll C&D Landfill, and place the material inside the new, expanded landfill.
- (3) The proposed landfill is not subject to *40 CFR 60 Subpart XXX- Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014*. The facility is not considered a municipal solid waste landfill and will NOT dispose of household waste, commercial solid waste, industrial solid waste, nonhazardous sludge, or conditionally exempt small quantity generator waste as defined in 40 CFR 60 Subpart XXX. Sealand Waste, LLC is authorized to dispose only non-hazardous construction and demolition (C&D) debris wastes including roadwork material, excavated material, demolition waste,



construction/renovation waste, and site clearance waste. Typical wastes expected to be managed by the facility include:

- Bricks, concrete, and other masonry materials;
- Soil, rock, and other debris from land clearing;
- Drill cuttings from oil and gas exploration/production;
- Waste soil generated by oil and gas drilling operations;
- Wood (including painted, treated and coated wood and wood products);
- Wall coverings;
- Plaster;
- Drywall;
- Plumbing Fixtures;
- Insulation;
- Roofing shingles and other roof coverings;
- Asphaltic pavement;
- Glass;
- Plastics that are not sealed in a manner that conceals other wastes;
- Empty buckets ten gallon or less in size and having no more than one-inch of residue remaining on the bottom;
- Materials containing non-friable asbestos, consistent with paragraph 360-1.2(b)(38);
- Electrical wiring and components containing no hazardous liquids; and,
- Piping and other metals that are incidental to the waste.

- (4) The facility proposed potential and actual emissions are less than major source thresholds. Certain collection and emission controls are proposed and include installation of a landfill gas collection system, operation of a SulfaTreat system, operation of an enclosed combustion device, operating Tier 4 final emission standard diesel engines, watering roadways an estimated 164 days per year and installing permanent engineering dust controls on the grinding, crushing, screening, and conveying operations. The potential and actual annual emission rates are summarized as follows:

Contaminant	PTE (tpy)	Actual (tpy)
NOx	33	4
CO	99	45
PM2.5	6	2
H2S	2	2
NMOC	2	2
CO2-e	43,782	26,217

- (5) Sealand Waste, LLC will install and operate an active landfill gas collection and control system in a progressive fashion beginning with the initial construction of the liner system and continuing throughout the construction, operation and post-closure period. The collected landfill gas will be treated using SulfaTreat media adsorbers to remove hydrogen sulfide (H₂S) followed by final treatment in an enclosed combustion device. The SulfaTreat spent



media will be replaced once outlet H₂S concentrations reach 3.0 ppm. The spent media will not be disposed in the Carroll C&D landfill.

- (6) The enclosed combustion device will provide additional treatment of the collected landfill gas. Combustion of the landfill gas within the flare will control greenhouse gas emissions, control odors, and reduce trace compounds found in landfill gas. Combustion temperature within the flare will be maintained in the optimal range between 1,400°F to 1,600°F by controlling gas flow and air inlet dampers.
- (7) An Air Quality Monitoring Plan will be followed to document proper operation of the gas collection and control system. Wellheads will be monitored on a monthly basis for oxygen content, temperature, percent methane, and static pressure. Quarterly H₂S monitoring will be along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30 meter intervals to ensure H₂S emissions remain less than 10 ppmv.
- (8) Sealand Waste, LLC is proposing to operate a 330 ton per day Construction and Demolition Debris Processing Operation (CDPO). Select waste loads that contain sufficient quantities of concrete and rubble, asphalt paving, bricks, rock, soil, wood, or ferrous metals will be processed through the CDPO. The processing of drywall in the CDPO is prohibited in order to reduce the potential for odors by keeping the sulfur content of the C&D fines to a minimum. All drywall must be removed before processing of mixed loads.
- (9) Sealand Waste, LLC is proposing to operate a Yard Waste Composting process. The proposed design capacity is three tons per day. It is anticipated that no more than 400 tons of yard waste will be accepted per year.
- (10) The Department regulates fine particulate matter, or PM_{2.5}, to ensure quantities are not emitted that could have a potential for significant adverse health and/or environmental impacts. Sealand Waste, LLC is required to develop and implement a dust control plan. The plan must include details of the mitigation measures used to reduce PM_{2.5} emissions, location and type of the engineering controls and frequency of use. The plan must be submitted for review and approval within 30 days of permit issuance.
- (11) Sealand Waste, LLC will operate four (4) Stationary Compression Ignition Internal Combustion Engines and one (1) emergency diesel engine to power the C&D debris processing equipment and for emergency purposes. Each engine is subject to 40CFR60 Subpart IIII and must comply with the Tier 4 final emission standards. All equipment must comply with the low sulfur fuel limits. Tier 4 certifications for each engine are required upon installation of the equipment.



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: DAVID S DENK
 DIVISION OF ENVIRONMENTAL PERMITS
 270 MICHIGAN AVE
 BUFFALO, NY 14203-2915

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 9 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 the expiration of permits for Title V and 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 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:
NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



Permit Under the Environmental Conservation Law (ECL)

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

IDENTIFICATION INFORMATION

Permit Issued To:SEALAND WASTE LLC
85 HIGH TECH DR
RUSH, NY 14543

Facility: CARROLL C & D MANAGEMENT FACILITY
309 Dodge Rd
Frewsburg, NY 14738

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

Permit Effective Date:

Permit Expiration Date:



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 2 6 NYCRR 211.1: Air pollution prohibited
- 3 6 NYCRR 227-1.3 (a): Compliance Demonstration
- 4 40CFR 60, NSPS Subpart IIII: Compliance Demonstration

Emission Unit Level

EU=5-ENGIN,Proc=ENG,ES=EMGEN

- 5 40CFR 60, NSPS Subpart IIII: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 6 ECL 19-0301: Contaminant List
- 7 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 8 6 NYCRR Subpart 201-5: Emission Unit Definition
- 9 6 NYCRR Subpart 201-5: Compliance Demonstration
- 10 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 11 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 12 6 NYCRR 211.2: Visible Emissions Limited
- 13 6 NYCRR 212-2.1: Compliance Demonstration
- 14 6 NYCRR 212-2.1: Compliance Demonstration
- 15 6 NYCRR 212-2.1: Compliance Demonstration
- 16 6 NYCRR Subpart 257-10: Compliance Demonstration
- 17 6 NYCRR Subpart 257-10: 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



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: 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 F: 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 G: 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 H: 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 I: 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 J: 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 K: 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 L: 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: Non Applicable requirements
Effective for entire length of Permit

Applicable Federal Requirement: 6 NYCRR 201-6.4 (g)

Item 1.1:

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

40 CFR 60.760

Reason: The proposed Carroll C&D Landfill is not subject to 40 CFR 60 Subpart XXX- Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014. The facility is not considered a municipal solid waste landfill and will NOT dispose of household waste, commercial solid waste, industrial solid waste, nonhazardous sludge, or conditionally exempt small quantity generator waste as defined in 40 CFR 60 Subpart XXX. Sealand Waste, LLC is authorized to dispose only non-hazardous construction and demolition (C&D) debris wastes including roadwork material, excavated material, demolition waste, construction/renovation waste, and site clearance waste. Typical wastes expected to be managed by the facility include:

- Bricks, concrete, and other masonry materials;
- Soil, rock, and other debris from land clearing;
- Drill cuttings from oil and gas exploration/production;
- Waste soil generated by oil and gas drilling operations;
- Wood (including painted, treated and coated wood and wood products);
- Wall coverings;



- Plaster;
- Drywall;
- Plumbing Fixtures;
- Insulation;
- Roofing shingles and other roof coverings;
- Asphaltic pavement;
- Glass;
- Plastics that are not sealed in a manner that conceals other wastes;
- Empty buckets ten gallon or less in size and having no more than one-inch of residue remaining on the bottom;
- Materials containing non-friable asbestos, consistent with paragraph 6NYCRR 360-1.2(b)(38);
- Electrical wiring and components containing no hazardous liquids; and,
- Piping and other metals that are incidental to the waste.

Condition 2: Air pollution prohibited
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 211.1

Item 2.1:

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 3: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 227-1.3 (a)

Item 3.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 5-ENGIN

Item 3.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion



installation which exhibits greater than 20 percent opacity (six minute average), except for one 6 minute period per hour of not more than 27 percent opacity. In addition, the Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the Method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up Method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Monitoring Frequency: ANNUALLY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 4: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 60, NSPS Subpart III

Item 4.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 4.2:

Compliance Demonstration shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

COMPRESSION IGNITION ENGINES
TIER 4 FINAL EMISSION STANDARDS
40CFR60 SUBPART IIII REQUIREMENTS

(1) Certification Emission Standards: [§60.4204(b), §60.4201(a)]

Each compression ignition (CI) internal combustion engine (ICE) purchased must be certified to the Tier 4 final emission standards as specified in the permit application.

(2) Fuel Requirements: [§60.4207(b)]

The diesel fuel must meet the requirements of 40 CFR 80.510(b) for nonroad diesel fuel having a maximum Sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

(3) Compliance Requirements: [§60.4211(a), §60.4211(c)]

(a) Each engine must be installed and configured according to the manufacturer's emission-related specifications.

(b) Operate and maintain each engine according to the manufacturer's emission-related written instructions.

(c) Change only those emission-related settings that are permitted by the manufacturer.

(4) Operating Limits: [§60.4211(g)]

If you do not install, configure, operate, and maintain each engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance by completing the required performance testing as specified in §60.4211(g).

(5) Reporting and Recordkeeping: [§60.4214(a)]

Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP) or have a displacement of greater than or equal to 10 liters per cylinder must meet the requirements of paragraphs §60.4214(a)(1) and (2).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



**** Emission Unit Level ****

Condition 5: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 60, NSPS Subpart III

Item 5.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 5-ENGIN

Process: ENG

Emission Source: EMGEN

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

EMERGENCY DIESEL ENGINE, 540 KW (734 HP)
TIER 4 FINAL EMISSION STANDARDS
40CFR60 SUBPART III REQUIREMENTS

(1) Certification Emission Standards: [§60.4205(b), §60.4202(a)]

Each diesel emergency engine purchased must be certified to the Tier 4 final emission standards as specified in the permit application.

(2) Fuel Requirements: [§60.4207(b)]

The diesel fuel must meet the requirements of 40 CFR 80.510(b) for nonroad diesel fuel having a maximum Sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

(3) Monitoring Requirements: [§60.4209(a)]

A non-resettable hour meter must be installed on each emergency engine prior to startup.

(4) Compliance Requirements: [§60.4211(a), §60.4211(c)]

(a) Each diesel emergency engine must be installed and configured according to the manufacturer's emission-related specifications.

(b) Operate and maintain each diesel emergency engine according to the manufacturer's emission-related written instructions.

(c) Change only those emission-related settings that



are permitted by the manufacturer.

(5) Operating Limits: [§60.4211(f)]

(a) There are no limits on hours of operation for emergency service.

(b) Maintenance checks and readiness testing is limited to 100 hours per year.

(c) Operate the emergency engine up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.

(6) Operating Limits: [§60.4211(g)]

If you do not install, configure, operate, and maintain each diesel emergency engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance by completing the required performance testing as specified in §60.4211(g).

(7) Recordkeeping: [§60.4214(b)]

The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



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: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;

(3) During the period of the emergency the facility owner 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 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 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 B: 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 C: 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 6: Contaminant List
Effective for entire length of Permit**

Applicable State Requirement:ECL 19-0301

Item 6.1:

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

CAS No: 000071-43-2
Name: BENZENE

CAS No: 000074-82-8
Name: METHANE

CAS No: 000075-01-4
Name: VINYL CHLORIDE

CAS No: 000107-13-1



Name: PROPENENITRILE

CAS No: 007446-09-5

Name: SULFUR DIOXIDE

CAS No: 007783-06-4

Name: HYDROGEN SULFIDE

CAS No: 0NY075-02-5

Name: PM 2.5

**Condition 7: Malfunctions and start-up/shutdown activities
Effective for entire length of Permit**

Applicable State Requirement:6 NYCRR 201-1.4

Item 7.1:

(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 8: Emission Unit Definition
Effective for entire length of Permit**

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 8.1:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 1-LFGAS

Emission Unit Description:

Emission Unit 1-LFGAS includes the C&D landfill and the resulting emission of gases generated by the degradation of non-putrescible non-hazardous waste streams under anaerobic conditions. The waste volume of the proposed landfill is approximately 5,345,000 cubic yards with a permitted waste acceptance rate of 1,000 tons per day (tpd) resulting in a site life of approximately 13 years. An active landfill gas collection and control system will be installed in a progressive fashion beginning with the initial construction of the liner system and continuing throughout the construction, operation and post-closure period. The collected landfill gas will be treated using SulfaTreat media adsorbers to remove hydrogen sulfide and reduce secondary sulfur dioxide emissions. Final treatment will occur in an enclosed flare.

Item 8.2:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 2-CDPRS

Emission Unit Description:

Emission unit 2-CDPRS includes a 330 ton per day construction and demolition debris processing operation. Particulate emissions are generated from the grinding, crushing, screening and conveying operations. Particulate emissions are controlled using mitigation measures including watering roadways and installing permanent engineering dust controls on the grinding, crushing, screening, and conveying operations.

Item 8.3:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 3-CMPST

Emission Unit Description:

Emission unit 3-CMPST includes a 400 ton per year yard waste composting operation. The yard waste composting operation shares use of the grinder, conveyor, and associated stationary engines with the C&D processing operation (2-CDPRS).

Item 8.4:

The facility is authorized to perform regulated processes under this permit for:

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



Emission Unit: 4-WOHTR

Emission Unit Description:

Emission unit 4-WOHTR includes operation of two waste oil heaters.

Item 8.5:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 5-ENGIN

Emission Unit Description:

Emission unit 5-ENGIN includes five (5) compression ignition reciprocating internal combustion engines used to power the construction and demolition debris processing equipment and for emergency purposes. Combustion emission estimates are based on Tier 4 Final emission standards. Tier 4 certifications for each engine are required upon installation of the equipment.

**Condition 9: Compliance Demonstration
Effective for entire length of Permit**

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 9.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-02-5 PM 2.5

Item 9.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

NYSDEC COMMISSIONER'S POLICY CP-33:
ASSESSING AND MITIGATING IMPACTS OF PM2.5 EMISSIONS

(1) The Department regulates fine particulate matter, or PM2.5, to ensure quantities are not emitted that could have a potential for significant adverse health and/or environmental impacts.

(2) In accordance with the CP-33 Policy, if PM10 emissions from a project do not equal or exceed 15 tons per year, then the PM2.5 impacts from the project are deemed insignificant and no further assessment is required under the policy.

(3) Sealand Waste, LLC has demonstrated PM10 emissions can be reduced below 15 tons per year by employing reasonable and necessary mitigation measures. The



mitigation measures include watering roadways an estimated 164 days per year and installing permanent engineering dust controls on the grinding, crushing, screening, and conveying operations.

(4) The proposed PM10 and PM2.5 emission estimates were used in an ambient air quality dispersion model to evaluate potential ambient impacts. Eleven emission sources including stationary and mobile sources were included in the analysis. The results of the analysis demonstrate, when using worst-case meteorological and operating conditions, the proposed project PM10 and PM2.5 impacts are below their respective National Ambient Air Quality Standard (NAAQS) limits when employing reasonable and necessary mitigation measures.

(5) Sealand Waste, LLC is required to develop and implement a dust control plan. The plan must include details of the mitigation measures used to reduce PM2.5 emissions, location and type of the engineering controls and frequency of use. The plan must be submitted for review and approval within 30 days of permit issuance.

(6) The department reserves the right to require additional controls if other sources are found to be impacting the area.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 10: Renewal deadlines for state facility permits
Effective for entire length of Permit**

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

Item 10.1:

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 11: Compliance Demonstration
Effective for entire length of Permit**

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

Item 11.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 11.2:

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



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 9
270 Michigan Ave.
Buffalo, NY 14203

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 12: Visible Emissions Limited
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 211.2

Item 12.1:

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 13: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 212-2.1

Item 13.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 13.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

MONTHLY WELLHEAD MONITORING

(1) Facility must install a sampling port at each wellhead for completing gas measurements.

(2) Operate each wellhead in the collection system using best management practices. As a general rule, the optimum operating conditions include a landfill gas temperature less than 131 degrees Fahrenheit, an oxygen level less



than 5 percent and a negative pressure.

(3) Monitor each wellhead on a monthly basis and make adjustments as needed.

(4) At a minimum, record the monthly wellhead measurements for oxygen content, temperature, percent methane, and static pressure.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 14: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 212-2.1

Item 14.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000074-82-8	METHANE
CAS No: 007783-06-4	HYDROGEN SULFIDE

Item 14.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

ACTIVE LANDFILL GAS COLLECTION AND CONTROL SYSTEM

Sealand Waste, LLC is required to install and operate a landfill gas collection and control system beginning with the initial construction of the liner system and continuing throughout the construction, operation and post-closure period. The active landfill gas collection and control system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill. The maximum expected total collected gas flow rate is 617 standard cubic feet per minute (scfm).

(2) Be designed to minimize off-site migration of subsurface gas. The owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices capable of controlling and extracting gas from all portions of the landfill sufficient to meet

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



all operational and performance standards.

(3) Collect gas from each area, cell, or group of cells in the landfill. The gas collection and control system shall begin operation once the minimum thickness of waste has been reached and sufficient gas is being generated.

(4) In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed as expeditiously as practicable.

(5) Keep daily records of the actual gas flow rate using an instantaneous flow meter. Each day calculate the 30-day rolling average by summing the previous 29 days and the current day actual gas flow rate measurements and dividing by 30. If the 30-day rolling average exceeds the maximum projected gas flow rate of 617 scfm, then notify the department to determine if the emission estimates and/or operation and design of the landfill gas collection system need to be re-evaluated.

Parameter Monitored: FLOW RATE

Upper Permit Limit: 617 cubic feet per minute (standard conditions)

Monitoring Frequency: DAILY

Averaging Method: 30 DAY ROLLING AVERAGE, ROLLED DAILY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 15: Compliance Demonstration
Effective for entire length of Permit**

Applicable State Requirement: 6 NYCRR 212-2.1

Item 15.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000075-01-4	VINYL CHLORIDE
CAS No: 000107-13-1	PROPENENITRILE
CAS No: 000071-43-2	BENZENE

Item 15.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

ENCLOSED COMBUSTION DEVICE



- (1) Emissions of air contaminants to the outdoor atmosphere from any process emission source or emission point are restricted as specified in 6NYCRR Part 212-2. Air contaminants listed in Section 212-2.2 Table 2 – High Toxicity Air Contaminant (HTAC) List shall either not exceed the mass emission limit listed or demonstrate compliance with the air cleaning requirements as specified in Subdivision 212-2.3(b), Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminants for the environmental rating assigned to the contaminant by the department.
- (2) The predicted uncontrolled mass emission rates from the proposed landfill exceed the mass emission limits from Table 2 for three HTAC. The HTACs include Acrylonitrile (also identified as propenenitrile), Benzene, and vinyl chloride.
- (3) The actual annual yearly emission rates of benzene and vinyl chloride are predicted to remain below the mass emission limits listed in Table 2 with the operation of an enclosed combustion device.
- (4) The actual annual yearly emission rate of acrylonitrile after destruction in an enclosed combustion device is predicted to exceed the mass emission limit listed in Table-2. However, as per Table-4, air dispersion modeling demonstrates that the maximum offsite air concentration is less than the applicable AGC/SGC.
- (5) Sealand Waste, LLC is required to control the collected landfill gas in an enclosed combustion device to reduce HTAC emissions below the emission limits of Table 2 and to demonstrate compliance with the air cleaning requirements of Table 4. In addition, the enclosed combustion device will significantly reduce methane emissions resulting in an overall reduction of landfill-derived greenhouse gas (GHG) emissions from 67,700 tpy CO₂ equivalents (CO₂-e) to 23,330 tpy CO₂-e. The proposed enclosed combustion device is manufactured by LFG Specialties, LLC (Model No. EF-63016) and has a reported control efficiency of 99% for methane.
- (6) Sealand Waste, LLC shall operate the enclosed combustion device at all times the collected landfill gas is routed to the system. The collected landfill gas should not be diverted or bypass the enclosed combustion device. If such a situation should happen, the department must be immediately notified.

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



(7) A continuous temperature monitoring device and a flow meter each equipped with a continuous recorder shall be calibrated, maintained, and operated according to the manufacturer's specifications. The combustion temperature within the flare shall be maintained in the optimal range between 1,400°F to 1,600°F, as recommended by the manufacturer.

(8) Keep 5 years up-to-date, readily accessible records of the temperature data, gas flow data, and maintenance activities.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1400 degrees Fahrenheit

Upper Permit Limit: 1600 degrees Fahrenheit

Reference Test Method: manufacturer recommendations

Monitoring Frequency: CONTINUOUS

Averaging Method: RANGE-NOT TO FALL OUTSIDE OF STATED

RANGE EXCEPT DURING STARTUP/SHUTDOWN

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 16: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 257-10

Item 16.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

CAS No: 007783-06-4 HYDROGEN SULFIDE

Item 16.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

SULFATREAT SYSTEM REQUIRED FOR H2S CONTROL AND
SECONDARY CONTROL OF SULFUR DIOXIDE EMISSIONS

(1) The New York State Air Quality Standards for Hydrogen sulfide (H2S), as listed in 6NYCRR Subpart 257-10, states that in any one-hour period, the average concentration of H2S shall not exceed 0.01 ppm (14 µg/m3). Hydrogen sulfide is a colorless gas having a characteristic, disagreeable odor often described as that of rotten eggs. Hydrogen sulfide can cause odors which unreasonably interfere with the comfortable enjoyment of life and property. Although tarnishing of metals and discoloring of



paint may occur at higher ambient air concentrations, the primary objective of this standard is to prevent disagreeable odors.

(2) C&D landfills have the potential to emit significant quantities of H₂S. This is a direct result of the large quantities of gypsum drywall that can account for up to one quarter of the waste disposed of in C&D debris landfills. For this reason, Sealand Waste, LLC was required to complete a modeling analysis to evaluate potential H₂S impacts from uncaptured landfill gas emissions and from the enclosed flare.

(3) Based on the modeling results, Sealand Waste, LLC is required to operate and maintain a SulfaTreat system to remove H₂S from the collected landfill gas. The SulfaTreat system must be operated at all times the collected landfill gas is routed through the gas collection system. The collected landfill gas should not be diverted or bypass the SulfaTreat system. If such a situation should happen, the department must be immediately notified.

(4) Operation of the SulfaTreat system is also required to reduce sulfur dioxide emissions created in the flare due to the presence of sulfur-containing compounds, including H₂S. The SulfaTreat system guarantees the secondary sulfur dioxide emissions are below major source thresholds. As such, the SulfaTreat system must be operated at all times the collected landfill gas is routed through the gas collection system.

(5) The SulfaTreat system will utilize the 410 XHP media, produced by MiSWACO, having a design H₂S removal efficiency of at least 99.925%. The SulfaTreat Adsorber Vessel arrangement consists of two to four reactor beds in a lead-lag configuration. The lead-lag arrangement allows continuous operation of the system without downtime for media change out. As documented by the modeling analysis, the media must be replaced once outlet H₂S concentrations reach 3.0 ppm. Sealand proposes to dispose of the spent media in a permitted MSW landfill. The media cannot be disposed in the Carroll C&D Landfill.

(6) Both the influent and the effluent gas of the SulfaTreat system will be monitored continuously for carbon dioxide (CO₂), oxygen (O₂), and percent methane (CH₄) using a GA3000 PLUS fixed landfill gas analyzer or similar instrument. Due to the limits of the GA3000 PLUS analyzer, inlet and outlet H₂S concentrations will be measured a minimum of once every hour. The GA3000 PLUS analyzer H₂S outlet concentration detection range is



between 0 and 50 ppm. The outlet H₂S concentration cannot exceed 3 ppm, which is at the low end of the GA3000 PLUS analyzer's detection range. As such, separate quarterly outlet H₂S measurements shall be taken to confirm the accuracy of the H₂S concentration. The quarterly confirmation measurement shall be completed using a portable Jerome J605 Gold Film Hydrogen Sulfide Analyzer which has a detection range of 0.003 to 10 ppm H₂S, or similar instrument. The monitored parameters will be manually recorded on a daily basis. The records shall be kept on-site and be made available to the Department upon request.

Parameter Monitored: HYDROGEN SULFIDE

Upper Permit Limit: 3 parts per million (by volume)

Reference Test Method: GA3000 PLUS

Monitoring Frequency: DAILY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 17: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 257-10

Item 17.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007783-06-4 HYDROGEN SULFIDE

Item 17.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: AMBIENT AIR MONITORING

Monitoring Description:

QUARTERLY HYDROGEN SULFIDE SURFACE SCANS

(1) The effectiveness of the landfill gas collection and control system at limiting hydrogen sulfide (H₂S) emissions from the surface of the landfill to less than 10 ppmv will be demonstrated by completing quarterly H₂S monitoring using a portable Jerome J605 Gold Film Hydrogen Sulfide Analyzer. Sealand Waste, LLC shall conduct surface testing along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.



(2) Areas with steep slopes or other dangerous areas may be excluded from the quarterly surface testing. For safety purposes, if a section of the landfill is covered with snow and/or ice or excessive precipitation (wet conditions) for an entire quarter, that section of the landfill does not need to be included in the surface scan required for that quarter. The facility must return to quarterly surface monitoring in the event that conditions improve (i.e., if the snow and ice melt and the ground surface is dry enough to be accessible by personnel and suitable for the monitoring instrument) during the quarterly monitoring period.

(3) The background concentration shall be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill. Surface emission monitoring shall be performed so that the probe inlet is placed no more than 5 centimeters above the landfill surface. Monitoring shall be performed to ensure minimal wind inference. A wind barrier, similar to a funnel surrounding the probe, should be used when average wind speed exceeds 5 miles per hour or wind gusts exceed 10 miles per hour.

(4) Any reading of 10 ppmv H₂S or more at any location shall be recorded and the following actions taken:

(a) The location of any exceedance shall be marked and the location recorded.

(b) Implement corrective actions such as: Application of additional cover soils; Use of alternative cover materials; Increase vacuum on the active collection and control system; Adjust individual wellheads to improve overall collection system performance; Perform maintenance on wellheads or leachate cleanouts; or Perform maintenance on the landfill cover system.

(c) The location shall be re-monitored within 10 calendar days of detecting the first exceedance.

(d) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance.

(e) In the event that a third exceedance occurs within the same quarterly period more substantial alternative actions must be proposed. Alternative actions, such as upgrading header pipes, control devices, or the blower, will be submitted to the NYSDEC for approval including a corresponding timeline for installation.

Parameter Monitored: HYDROGEN SULFIDE
Upper Permit Limit: 10 parts per million (by volume)
Reference Test Method: 40CFR60.764(a)(6), general procedure reference only

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



Monitoring Frequency: QUARTERLY
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
Subsequent reports are due every 3 calendar month(s).

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

**Condition 18: Emission Point Definition By Emission Unit
Effective for entire length of Permit**

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: 1-LFGAS

Emission Point: FLARE

Height (ft.): 30 Diameter (in.): 72
NYTMN (km.): 4659.444 NYTME (km.): 161.685

**Condition 19: Process Definition By Emission Unit
Effective for entire length of Permit**

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: 1-LFGAS

Process: FUG

Source Classification Code: 5-02-006-02

Process Description:

Process FUG includes landfill gas not collected by the active gas collection system. The uncaptured emissions will be monitored on a quarterly basis by taking ambient hydrogen sulfide air measurements around the perimeter and on the surface of the landfill using a 30 meter grid pattern, as outlined in the Air Quality Monitoring Plan dated September 30, 2015.

Emission Source/Control: EXTLF - Process

Design Capacity: 142,350 cubic yards

Emission Source/Control: NEWLF - Process

Design Capacity: 5,448,710 cubic yards

Item 19.2:

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



Emission Unit: 1-LFGAS
 Process: GAS Source Classification Code: 5-02-006-03

Process Description:
 Process GAS includes the collected landfill gas and treatment system. An active gas collection and control system will be installed as landfilling operations progress. As outlined in the Engineering Report and Operation and Maintenance Manual, the landfill gas collection system is composed of a Main header; Subheaders; Wellheads; Condensate drains; Primary leachate collection and removal system collectors; Horizontal collectors; Vertical collectors; and, a Gas venting layer. The horizontal collection system is installed in layers with a vertical separation of 40 feet and a horizontal separation of 200 feet. Landfill gas will also be pulled off the cleanout risers and sideslope laterals in the primary leachate collection system. Vertical collectors will be installed when the horizontal collectors are no longer effective. The vertical collectors will be installed at a minimum spacing of one per acre.

The landfill gas control system will contain a condensate knockout, one or more blowers, two to four SulfaTreat adsorber vessels in a lead-lag arrangement, a flame arrestor, an enclosed flare with pilot fuel, and process control and monitoring systems. The proposed enclosed flare is manufactured by LFG Specialties, LLC (Model No. EF-630I6) with a design capacity of 800 cubic feet per minute.

The combustion emissions from the enclosed flare using the 1998 AP-42 emission factors are as listed below. The emission factors (EF) are in units of Lbs/MM dscf Methane. The maximum expected methane collection rate in year 2029 is 1.12E+08 cubic feet per year.

AP-42, ver. November 1998

Cont.	EF	lb/hr	tpy
NOx	40	0.5	2
CO	750	9.6	42
PM	17	0.2	1

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

Emission Source/Control: STR01 - Control
 Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: STR02 - Control
 Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



Emission Source/Control: EXTLF - Process
Design Capacity: 142,350 cubic yards

Emission Source/Control: NEWLF - Process
Design Capacity: 5,448,710 cubic yards

Item 19.3:

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

Emission Unit: 2-CDPRS

Process: PRS

Process Description:

Process PRS includes the construction and demolition debris processing operation (CDPO). The processed C&D debris is used for resale or used within the facility for alternative daily cover or road base material. Approximately 430 cubic yards of material will be processed per day. Select waste loads that contain sufficient quantities of concrete and rubble, asphalt paving, bricks, rock, soil, wood, or ferrous metals will be processed through the CDPO. The processing of drywall in the CDPO is prohibited in order to reduce the potential for odors by keeping the sulfur content of the C&D fines to a minimum. All drywall must be removed before processing of mixed loads.

Emission Source/Control: CONVR - Process
Design Capacity: 480 feet per minute

Emission Source/Control: CRUSH - Process
Design Capacity: 350 tons per hour

Emission Source/Control: GRIND - Process
Design Capacity: 95 tons per hour

Emission Source/Control: SCREN - Process
Design Capacity: 400 tons per hour

Item 19.4:

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

Emission Unit: 3-CMPST

Process: AER

Source Classification Code: 5-04-103-10

Process Description:

Process AER includes the aeration process for the yard waste composting operation. The yard waste composting operation will manage source separated yard wastes generated within the Town of Carroll. The facility will accept materials such as leaves, small brush, wood chips, grass and discarded Christmas trees. This material will be managed by windrow composting, where organic material is



formed into windrows. These windrows are relatively long piles with a triangular cross section that are turned to provide aeration. Frequent turning of the material provides aeration, mixes the material, helps control temperature and redistributes moisture. Turning will be accomplished by using a front end loader or a tractor pulled compost turner (e.g., Aeromaster PT-120 or equivalent).

Emission Source/Control: PILES - Process
 Design Capacity: 735 cubic yards

Item 19.5:

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

Emission Unit: 4-WOHTR
 Process: HTR Source Classification Code: 1-05-002-13
 Process Description:
 Process 4-WOHTR includes operation of two waste oil space heaters in the maintenance shop during the winter months.

Emission Source/Control: HTR01 - Combustion

Emission Source/Control: HTR02 - Combustion

Item 19.6:

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

Emission Unit: 5-ENGIN
 Process: ENG
 Process Description:
 Process ENG includes the following compression ignition stationary internal combustion engines:

Equipment	Engine Power Rating
Tub Grinder	782 kW
Impact Crusher	224 kW
Shaker Screen	62 kW
Stack Conveyor	35 kW
Emergency	540 kW

The resulting potential Tier 4 combustion emission rates running at 8,760 hours per year compared to the proposed actual emission rates are as follows:

Contaminant	PTE	Actual
NOx	30 tpy	2 tpy
CO	57 tpy	4 tpy
PM2.5	0.46	0.03

New York State Department of Environmental Conservation

Permit ID: 9-0624-00025/00008

Facility DEC ID: 9062400025



Emission Source/Control: EMGEN - Combustion
Design Capacity: 540 kilowatts

Emission Source/Control: ENG01 - Combustion
Design Capacity: 782 kilowatts

Emission Source/Control: ENG02 - Combustion
Design Capacity: 224 kilowatts

Emission Source/Control: ENG03 - Combustion
Design Capacity: 62 kilowatts

Emission Source/Control: ENG04 - Combustion
Design Capacity: 35 kilowatts