

CLARK COUNTY
DEPARTMENT OF AIR QUALITY AND
ENVIRONMENTAL MANAGEMENT
500 South Grand Central Parkway, Box 555210, Las Vegas, Nevada 89155
Part 70 Operating Permit
Source: 15033
Issued in accordance with the
Clark County Air Quality Regulations (AQR)

**ISSUED TO: Republic Services of Southern Nevada, Sunrise Municipal
Solid Waste Landfill**

SOURCE LOCATION:

1 ½ miles east of the intersection of Vegas
Valley Drive and Hollywood Boulevard
Las Vegas, Nevada 89142
T21S, R62E, Sections 1 and 12
Hydrographic Basin Number: 212

COMPANY ADDRESS:

770 East Sahara Avenue
Las Vegas, Nevada 89104

NATURE OF BUSINESS:

SIC Code 4953: Refuse Systems
NAICS: 562212: Solid Waste Landfill

RESPONSIBLE OFFICIAL:

Name: Todd Whittle
Title: Area Environmental Manager
Phone: (702) 599-5537
Fax Number: (702) 599-5585

Permit Issuance Date: October 5, 2010 Expiration Date: October 4, 2015

**ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY AND ENVIRONMENTAL
MANAGEMENT**



Tina Gingras
Assistant Director, Clark County DAQEM

EXECUTIVE SUMMARY

Republic Services of Southern Nevada (RSSN) Sunrise Municipal Solid Waste Landfill (Sunrise Landfill) is under SIC Code 4953 – Refuse System and NAICS Code 562212 – Solid Waste Landfill. Sunrise Landfill is located in Las Vegas, Southwest of Frenchman Mountain, one and a half miles from the intersection of Vegas Valley Drive and Hollywood Boulevard. The legal description of the source's location is as follows: portions of T21S, R62E, Sections 1 and 12 in Las Vegas Valley, Clark County, Las Vegas, Nevada. Sunrise Landfill is situated in Hydrographic Area 212 (Las Vegas Valley). Las Vegas Valley is designated as nonattainment area for PM₁₀ and CO, unclassified nonattainment area for 8-hour ozone (regulated through NO_x and VOC), and is PSD for SO₂.

Sunrise Landfill is a major source for SO₂ and H₂S, and a minor source for PM₁₀, NO_x, CO, VOC and HAP. Sunrise Landfill served as the primary municipal solid waste landfill for Clark County from 1951 to October 1993, when it permanently closed. The types of material the landfill accepted included municipal solid waste, petroleum contaminated soil, asbestos, construction debris, sewage sludge, septic waste, medical waste and dead animal waste. Sunrise Landfill has a gas collection and control system with a combustion flare capable of burning at 57.24 MMBtu/hr of collected landfill gases. The gas collection and control system is designed to capture approximately 75% of the landfill gas generated, leaving approximately 25% as fugitive emissions. This Part 70 Operating Permit is issued based on the Title V Renewal application submitted on February 13, 2009.

The following table summarizes the source potential to emit for each regulated air pollutant from all emission units addressed by this Part 70 Operating Permit:

Source-wide PTE (tons per year)¹

Pollutants	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP	TCS	
							NMOC	H ₂ S
PTE (Including Fugitives)	4.18	10.03	62.67	249.20	8.93	6.69	22.90	44.73
Major Source Thresholds	70	50	70	100	50	25²	50³	1³

¹Not a source-wide emission limit; values are used for determining the major source status.

²Ten (10) tons for any individual HAP or 25 tons for combination of all HAPs.

³H₂S and NMOC are major at stated thresholds per AQR 12.2.19 and AQR Section 0.

Pursuant to AQR 12.5.2/AQR 19.4.2, all terms and conditions in Sections I through IV and Attachment 1 in this permit are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I-1: Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
Btu	British Thermal Unit
°C	Degrees Celsius
CAAA	Clean Air Act, as amended
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
DAQEM	Clark County Department of Air Quality & Environmental Management
EPA	United States Environmental Protection Agency
EU	Emission Unit
°F	Degrees Fahrenheit
ft ³ /yr	Cubic foot per year
HAP	Hazardous Air Pollutant
HP	Horse Power
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
LANDGem	Landfill Gas Emissions Model
LFG	Landfill Gas
m ³ /yr	Cubic meter per year
Mg/yr	Megagram per year
MMBtu	Millions of British Thermal Units
M/N	Model Number
MSWL	Municipal Solid Waste Landfill
N/A	Not Applicable
NAICS	North American Industry Classification System
NMOC	Nonmethane Organic Compounds
NO _x	Nitrogen Oxides
NRS	Nevada Revised Statutes
OP	Operating Permit
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
ppmvd	Parts per Million, Volumetric Dry
PTE	Potential to Emit
QA/AC	Quality Assurance/Quality Control
RMP	Risk Management Plan
SCC	Source Classification Codes
scfm	Standard Cubic Feet per minute
SIC	Standard Industrial Classification
SIP	State Implementation Plan
S/N	Serial Number
SO _x	Sulfur Oxides
SSM	Startup, Shutdown, and Malfunction
TCS	Toxic Chemical Substance
VOC	Volatile Organic Compound

II. GENERAL CONDITIONS

A. General Requirements

1. The Permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act (Act) and is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application. [AQR 12.5.2.6(g)(1)/AQR 19.4.1.6.a]
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. [AQR 12.5.2.6(f)/AQR 19.4.1.5]
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. Failure to pay Part 70 permit fees may result in citations or suspensions or revocation of the Part 70 Permit. [AQR 12.5.2.6(h)/AQR 19.4.1.7]
4. The permit does not convey any property rights of any sort, or any exclusive privilege. [AQR 12.5.2.6(g)(4)/AQR 19.4.1.6.d]
5. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to interfere with the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by the AQR. [AQR 5.1]
6. The Permittee owning, operating, or in control of any equipment or property who shall cause, permit, or participate in any violation of the AQR shall be individually and collectively liable to any penalty or punishment imposed by and under the AQR. [AQR 8.1]
7. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [AQR 12.5.2.2/AQR 19.3.2]
8. The Permittee may request confidential treatment of any records in accordance with AQR. Emission data, standards or limitations [all terms as defined in 40 CFR 2.301(a)] or other information as specified in 40 CFR 2.301 shall not be considered eligible for confidential treatment. The Administrator and the Control Officer shall each retain the authority to determine whether information is eligible for confidential treatment on a case-by-case basis. [AQR 12.5.2.6(g)(5)/AQR 19.3.1.3 and 40 CFR 2.301]

B. Modification, Revision, Renewal Requirements

1. The Permittee shall not make a modification, as defined in AQR Section 0, to the existing source prior to receiving an ATC from the Control Officer. [AQR 12.1.1.1 (amended 10/07/04)]
2. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for the permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [AQR 12.5.2.6(g)(3)/AQR 19.4.1.6.c]
3. Any request for a permit revision must comply with the requirements of AQR Section 12.5/AQR Section 19. [AQR 12.5.2/AQR 19.5]
4. The Permittee shall not build, erect, install or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable requirement. [AQR 80.1 and 40 CFR 60.12]

5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. *[AQR 12.5.2.1/AQR 19.4.1.11]*
6. For purposes of permit renewal, the Permittee shall submit a timely and complete application. A timely application is one submitted between six (6) months and 18 months prior to the date of permit expiration. *[AQR 12.5.2.6(j)/AQR 19.3.1.1.c]*
7. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with AQR in which case the permit shall not expire and all terms and conditions of the permit shall remain in effect until the renewal permit has been issued or denied. *[AQR 12.5.2.11/AQR 19.5.3.2]*

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Control Officer along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)/AQR 19.4.1.6]*
2. The Permittee shall allow the Control Officer or an authorized representative, upon presentation of credentials:
 - a. entry upon the Permittee's premises where the source is located, or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
 - b. access to inspect and copy, at reasonable times, any records that must be kept under conditions of the permit;
 - c. access to inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. access to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. *[AQR 4.3 and AQR12.5.2.8(b)/AQR 19.4.3.2]*
3. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit. *[AQR 12.5.2.6(g)(2)/AQR 19.4.1.6.b]*

2. Any person who violates any provision of this Operating Permit, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by DAQEM is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board/Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. [AQR 9.1]
3. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review as provided in Chapter 233B of NRS. [AQR 9.12]
4. The Permittee of any stationary source or emission unit that fails to demonstrate compliance with the emissions standards or limitations shall submit a compliance plan to the Control Officer pursuant to AQR Section 10. [AQR 10.1]
5. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. [AQR 13.1.7]
6. Requirements for compliance certification with terms and conditions contained in the Operating Permit, including emission limitations, standards, or work practices, are as follows:
 - a. the Permittee shall submit compliance certifications annually in writing to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each year on January 30th of each year;
 - b. compliance shall be determined in accordance with the requirements detailed in AQR 19.4.1.3, record of periodic monitoring, or any credible evidence; and
 - c. the compliance certification shall include:
 - i. identification of each term or condition of the permit that is the basis of the certification;
 - ii. the Permittee's compliance status and whether compliance was continuous or intermittent;
 - iii. methods used in determining the compliance status of the source currently and over the reporting period consistent with the AQR;
 - iv. other specific information required by the Control Officer to determine the compliance status of the source. [AQR 12.5.2.8(e)(3)/AQR 19.4.3.5]
7. The Permittee shall submit annual emissions inventory reports based on the following: [AQR 18.6.1]
 - a. The annual emissions inventory shall be received by DAQEM no later than March 31 after the reporting year.
 - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.
8. The Permittee shall report to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) any upset, breakdown, malfunction, emergency or deviation which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below [AQR 25]:
 - a. within one (1) hour of the onset of the event, the report shall be communicated by phone (702) 455-5942, or by fax (702) 383-9994.

- b. as soon as practicable but not exceeding ten (10) calendar days from the onset of the event, the detailed written report shall be submitted. Such reports shall include the probable cause of the excess emissions, emission calculations and any corrective actions taken.
9. The Permittee shall report to the Control Officer deviations that do not result in excess emission, with the quarterly reports. Such reports shall include the probable cause of deviations and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)/AQR 19.4.1.3(c)]*
10. The Permittee shall include a certification of truth, accuracy, and completeness by a responsible official when submitting any application form, report, or compliance certification pursuant to this Operating Permit. This certification and any other certification required shall state, “Based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.” This statement shall be followed by the signature and printed name of the responsible official certifying compliance and the date of signature. *[AQR 12.5.2.6(l)/AQR 19.3.4]*

E. Performance Testing Requirements

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the DAQEM regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. *[AQR 4.5]*
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.6]*
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) not less than 45 nor more than 90 days prior to the anticipated date of the performance test. *[AQR 12.5.2.8]*
4. The Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA. *[AQR 14.1 and 40 CFR 60.8(b)]*
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. *[AQR 12.5.2.8]*
6. The Control Officer may require additional or more frequent performance testing. *[AQR 4.5]*

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

A. Emission Units

The stationary source covered by this Part 70 OP is defined to consist of the emission units and associated appurtenances summarized in Table III-A-1. [AQR 12.5.2.3/AQR 19.4.1]

Table III-A-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #
A01	Landfill Gas Collection and Combustion Flare, Air Assisted, Open Flare Design	57.24 MMBtu/hr	LFG Specialties, LLC	PCF1230110	1700
A02	Landfill Fugitive Emissions	N/A	N/A	N/A	N/A

B. Emission Limitations and Standards

[Authority for all values, limits, and conditions in this section, unless otherwise specified: AQR 12.5.2/AQR 19.4.1.1]

1. Emission Limits

- a. Actual emissions from each emission unit shall not exceed the PTE listed in Table III-B-1. [AQR 12.5.2.3(c)/AQR 19.3.3.3]

Table III-B-1: Emission Unit PTE (tons per rolling 12-months)

EU	Description	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP	TCS	
								NMOC ¹	(H ₂ S) ²
A01	Flare Stack	4.18	10.03	62.67	249.20	0.26 ³	2.11	0.67	0.40
A02	Fugitives	0.00	0.00	0.00	0.00	8.67 ³	4.58	22.23	44.33

¹ NMOC are non-methane organic compounds, expressed as hexane.

² TCS are predominantly hydrogen sulfide (H₂S).

³ VOC emissions comprise 39% of the NMOC in landfills (Reference: AP-42, Table 2.4-2; revised 11/98).

- b. Actual emissions from each emission unit shall not exceed the PTE listed in Table III-B-2. [AQR 12.5.2.3(c)/AQR 19.3.3.3]

Table III-B-2: Emission Unit PTE (pounds per hour)

EU	Description	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP	TCS	
								NMOC ¹	(H ₂ S) ²
A01	Flare Stack	0.95	2.29	14.31	56.89	0.06 ³	0.48	0.15	0.09
A02	Fugitives	0.00	0.00	0.00	0.00	1.98 ³	1.05	5.08	10.12

¹ NMOC are non-methane organic compounds, expressed as hexane.

² TCS are predominantly hydrogen sulfide (H₂S).

³ VOC emissions comprise 39% of the NMOC in landfills (Reference: AP-42, Table 2.4-2; revised 11/98).

- c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. [AQR 26.1.1]
- d. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph 40 CFR 60.18(f), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. [40 CFR 60.18(c)(1)]

2. Production Limits

- a. The Permittee shall limit the maximum production of landfill gas to 1.34×10^9 cubic feet per year (3.79×10^7 cubic meters per year) as calculated by EPA's LANDGem Emission Model for Municipal Solid Waste Landfill (MSWL). Any landfill gas generation in excess of this amount shall require an application for a revision to the Operating Permit unless the Permittee receives approval from DAQEM for higher production limits by demonstrating that exceeding the higher production limit does not result in any emission rate greater than those listed in either Tables III-B-1 or III-B-2.
- b. The Permittee shall limit the actual flow of landfill gas through the collection and control system so as to not exceed the rated flow of 1,908 standard cubic feet per minute (scfm), unless the Permittee receives approval from DAQEM for a higher flow rate by demonstrating that exceeding the maximum flow rate does not result in any emissions greater than those listed in either Table III-B-1 or III-B-2.
- c. The Permittee shall not allow the heat rate of the combustion flare to exceed either 57.24 MMBtu per hour or 501,422 MMBtu per year unless the Permittee receives approval from DAQEM for a higher heat rate by demonstrating that exceeding the maximum heat rate does not result in emissions greater than those listed in either Tables III-B-1 or III-B-2.

3. Emission Controls

- a. The Permittee shall install and operate a gas collection and control system that, at minimum, meets the conditions provided in 40 CFR § 60.33c(c) and § 60.752(b)(2)(ii). The source has met these requirements by installing a LFG capture and control system with an open flare [40 CFR § 60.33c(c) and § 60.752(b)(2)(ii)]
- b. The Permittee shall operate the LFG collection system such that gas is collected from each area, cell, or group of cells in the MSWL in which solid waste has been in place for 2 years. [40 CFR § 60.34c and 40 CFR § 60.753(a)]
- c. The Permittee shall operate the LFG collection system with negative pressure at the wellheads except under the following conditions: [40 CFR § 60.34c and 40 CFR § 60.753(b)]
 - i. a fire or increased temperature;
 - ii. use of a geomembrane or synthetic cover. The Permittee shall develop acceptable limits in the design plan; or
 - iii. a decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Administrator.
- d. The Permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well if there is supporting data that the elevated parameter does not cause fire or significantly inhibit anaerobic decomposition by killing methanogens, upon obtaining written authorization from the Control Officer. [40 CFR § 60.34c and 40 CFR § 60.753(c)]

- e. The Permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. *[40 CFR § 60.34c and 40 CFR § 60.753(d)]*
- f. The Permittee shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the Permittee shall shut down the gas mover system and close all valves in the collection and control system that contributes to the venting of gas to the atmosphere within 1 hour. *[40 CFR § 60.34c and 40 CFR § 60.753(e)]*
- g. The Permittee shall operate the combustion flare with the flame present at all times when the collected gas is routed to the system. *[40 CFR § 60.34c and 40 CFR § 60.753(f)]*
- h. If the operational requirements in Conditions III-B-3-(c, d, and e) are not met, the Permittee shall initiate the following corrective actions: *[40 CFR § 60.34c and 40 CFR § 60.753(g)]*
 - a. Action shall be initiated to correct the exceedance within 5 calendar days of the initial exceedance or insufficient air flow measurement; and
 - b. If correction of the exceedance, or the negative pressure cannot be achieved, without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance.
- i. The Permittee shall design and operate the open combustion flare in accordance with 40 CFR § 60.18, except that the net heating value of the combusted landfill gas shall be calculated from the concentration of methane in the gas as measured by Method 3C. (A minimum of three 30-minute Method 3C samples are determined.) *[40 CFR § 60.33c(b), 40 CFR § 70.752(b)(iii)(A), and 40 CFR § 754(e)]*
- j. The Permittee shall operate the combustion flare with a programmable logic control system or equivalent control system capable of automatic gas shut-off, automatic flame ignition, and automatic blower controls. *[AQR 12.5.2.6(a)/AQR 19.4.1.1]*
- k. Except during periods of start-up, shut-down or malfunction, the Permittee shall apply controls specified in this section. Periods of start-up, shut-down and malfunction shall not exceed five (5) days for the collection system and shall not exceed one (1) hour for treatment and control devices. *[40 CFR § 60.755(e)]*
- l. The Permittee shall maintain a copy of the approved SSM plan dated 1/16/2004 on site. Any changes that need to be made to the SSM plan must be submitted to the Control Officer for review and approval prior to making the change. *[40 CFR § 63.1960]*
- m. At all times, including periods of startup, shutdown and malfunction, the Permittee shall under all conditions, maintain and operate the source in a manner consistent with good air pollution control practice for minimizing emissions as required by 40 CFR 63.6. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Control Officer which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. *[40 CFR § 63.1960]*
- n. The Permittee shall not cap or remove the collection and control system until all of the following conditions are met: *[40 CFR § 60.32c(d)(2) and 40 CFR § 60.752(b)(2)(v)]*

- i. the collection and control system has been in operation a minimum of 15 years; and
- ii. following the procedures specified in 40 CFR § 60.754(b), the calculated NMOC gas produced by the landfill is less than 50 mega grams per year on 3 successive tests dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
- o. Pursuant to AQR Section 43, this source shall be operated in a manner such that odors will not cause a nuisance. *[AQR 43] local only requirement*
- p. The Permittee shall comply with the control requirements contained in this section. If there is inconsistency between standards or requirements, the most stringent standard or requirement shall apply. *[AQR 12.5.2.6(a)/AQR 19.4.1.1]*

C. Monitoring

Surface Methane Monitoring

1. The Permittee shall monitor, on a quarterly basis, surface concentrations of methane using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the following specifications: *[40 CFR § 60.34c and 40 CFR § 60.755(c)(1)]*
 - a. the portable analyzer shall meet the instrument specification provided in 40 CFR §60 Appendix A: Method 21, Section 3, except that “methane” shall replace all references to VOC;
 - b. the calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air;
 - c. the instrument evaluation procedures of 40 CFR 60 Appendix A: Method 21, Section 4.4 shall be used to meet the performance evaluation requirements in Section 3.1.3; and
 - d. the calibration procedures provided in 40 CFR 60 Appendix A: Method 21, Section 4.2 shall be followed immediately before commencing a surface monitoring survey.
2. The Permittee shall monitor surface concentrations of methane on a quarterly basis around the perimeter of the collection area of the MSWL and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The Permittee may establish an alternative traversing pattern that ensures equivalent coverage. *[40 CFR § 60.34c and 40 CFR § 60.753(d)]*
3. The Permittee shall determine the background concentration by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. *[40 CFR § 60.34c and 40 CFR § 60.755(c)(2)]*
4. The Permittee shall perform quarterly surface emission monitoring in accordance with 40 CFR §60 appendix A: Method 21, Section 4.3.1, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. *[40 CFR § 60.34c and 40 CFR §60.755(c)(3)]*
5. The Permittee shall record any reading of 500 ppm or more of methane above background at any location as a monitored exceedance and shall take the following actions. As long as the following actions are taken, the exceedance is not a violation of the operation requirements of 40 CFR § 60.753(d). *[40 CFR § 60.34c and 40 CFR § 60.755(c)(4)]*

- a. The Permittee shall mark and record the location of each monitored exceedance.
 - b. The Permittee shall perform cover maintenance or make adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance and shall re-monitor the location within 10 calendar days of detecting the exceedance.
 - c. If the re-monitoring of the location shows a second exceedance, the Permittee shall take additional corrective action and shall monitor the location again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the Permittee shall take the action specified in Condition III-C-5(e), and no further monitoring of that location is required until the action specified in Condition III-C-5(e) has been taken.
 - d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day re-monitoring specified in Condition III-C-5(b) or (c) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Condition III-C-5(c) and (e) shall be taken.
 - e. For any location where monitored methane concentration equals or exceeds 500 ppm above background 3 times within a quarterly period, the Permittee shall install a new well or other collection device within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.
6. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. *[40 CFR § 60.34c and 40 CFR § 60.755(c)(5)]*

LFG Capture System Monitoring

7. The Permittee shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead of the active gas collection system: *[40 CFR § 60.34c and 40 CFR § 60.756(a)(1) through (3)]*
 - a. measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR §60.755(a)(3);
 - b. monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis using Method 3C, as provided in 40 CFR §60.755(a)(5); and
 - c. monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR §60.755(a)(5).
8. The Permittee shall measure the gauge pressure in the gas collection header at each individual well monthly. If a positive pressure exists, action shall be initiated to correct the exceedance with 5 calendar days, except for the three conditions allowed under Condition III-B-3-b and 40 CFR §60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedance of other operational

or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval. *[40 CFR § 60.34c and 40 CFR § 60.755(a)(3)]*

LFG Control Flare Monitoring

9. The Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment on the open combustion flare: *[40 CFR § 60.34c and 40 CFR § 60.756(c)]*
 - a. a heat sensing device, such as an ultraviolet beam sensor or thermocouple at the pilot light or the flame itself to indicate the continuous presence of a flame; and
 - b. a device that records LFG flow to or bypass of the open combustion flare. The Permittee shall install, calibrate, and maintain a gas flow rate measuring device that shall record the LFG flow to the control device at least every 15 minutes.

10. The Permittee shall monitor on a quarterly basis, the visible emissions from the combustion flare using Method 22. *[40 CFR § 60.33c(c)(1) and 40 CFR § 60.18(f)(1)]*

Other

11. The Permittee, after the installation of a collection and control system, shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR § 60.752(b)(2)(v), using the equation in 40 CFR § 60.754(b). *[40 CFR § 60.34c and 40 CFR § 60.754(b)]*
 - a. The Permittee shall use the flow rate of landfill gas by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions in 40 CFR § 60 Appendix A: Method 2E, Section 4.
 - b. The Permittee shall determine the average NMOC concentration by collecting and analyzing landfill gas samples from the common header pipe before the gas moving or condensate removal equipment using the procedures in 40 CFR § 60 Appendix A: Method 25C or Method 18.
 - c. The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

12. The Permittee shall calculate fugitive NMOC and H₂S emissions on an annual basis using chemical analysis of LFG and AP-42 default emission factors in accordance to the provisions in EPA approved methods (or equivalent) or 40 CFR § 60 Appendix A: General Provisions or using a DAQEM approved Performance Test Method. Fugitive emissions from the landfill are to be calculated based on the assumption that 25% of the landfill gas generated is not captured. *[AQR 12.5.2.6/AQR 19.4.1]*

D. Testing

1. The Permittee shall use performance testing as the initial instrument for determining compliance with the performance standards for the collection and control system *[AQR 12.5.2.6/AQR 19.4.1]*

2. The Permittee shall monitor on a quarterly basis, the visible emissions from the combustion flare by employing 40 CFR 60 Appendix A, Method 22. The observation period is 2 hours and shall be used according to Method 22. *[40 CFR § 60.33c(c)(1) and 40 CFR § 60.18(f)(1)]*
3. The Permittee shall conduct on a quarterly basis, a heating value analysis (Btu content) on the landfill gas consistent with EPA approved methods (or equivalent) or a net heating value analysis of the combustion landfill gas as outlined in 40 CFR § 60.18(f)(3). The concentration of methane in the landfill gas shall be determined by using 40 CFR 60 Appendix A: Method 3C. *[40 CFR § 60.33c(c)(1), 40 CFR § 60.18(f)(4), and 40 CFR § 60.754(e)]*
4. The Permittee shall, on an annual basis, conduct a chemical analysis on the landfill gas for methane, NMOC, and H₂S in accordance to the provisions in EPA approved methods (or equivalent) or 40 CFR § 60 Appendix A: General Provisions or using a DAQEM approved Performance Test Method. *[AQR 12.5.2.6/AQR 19.4.1]*

E. Record Keeping

1. The Permittee shall maintain records on site that includes, at a minimum: *[AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]*
 - a. results of the quarterly surface concentration monitoring for methane;
 - b. results of the quarterly background concentration monitoring for methane;
 - c. readings and locations of each surface monitoring exceedances during the surface concentration monitoring for methane; and
 - d. corrective actions taken and re-monitoring of any surface monitoring exceedance.
2. The Permittee shall maintain record on site that include, at a minimum: *[AQR 12.5.2.6(d)/AQR 19.4.1.3]*
 - a. monthly measurements of the gauge pressure in the gas collection header;
 - b. monthly concentrations of nitrogen and oxygen in the landfill gas;
 - c. monthly temperature of the landfill gas; and
 - d. corrective actions taken if any deviations observed during the monthly well head monitoring for pressure, temperature or nitrogen/oxygen concentration;
 - e. monthly landfill cover integrity and repairs implemented.
3. The Permittee shall maintain records on site that include, at a minimum: *[AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]*
 - a. a quarterly summary of the hours of operation of the combustion flare;
 - b. results of the quarterly Method 22 test results of the combustion flare;
 - c. continuous monitoring records of the combustion flare temperature;
 - d. quarterly calculated average of the hourly and rolling 12-month total LFG flow (in cubic feet or cubic meters) through the gas collection and control system;
 - e. landfill gas heating value in MMBtu/dscf based on EPA approved methods.
 - f. calculated quarterly average of the heat input to the combustion flare in MMBtu per hour and in 12-month rolling total;
 - g. monthly estimation of combustion flare emissions and a 12-month rolling total to be recorded each month;

- h. annual estimation of NMOC and H₂S fugitive emissions using chemical analysis of LFG and AP-42 default emission factors;
 - i. a quarterly summary describing the deviations, if any, per the SSM plan in the capture and control system;
 - j. the magnitude and duration of malfunctions, excess emissions, monitoring system downtimes, corrective actions taken, etc. during the flare operation, as required by 40 CFR 60.7; and
 - k. performance test results.
- 4. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]*
 - 5. The Permittee shall include deviations specified in 40 CFR §63.1965 in its quarterly and annual reports. Specified deviations include periods when: *[40 CFR §63.1965]*
 - a. A deviation occurs when the control device operating parameter boundaries described in 40 CFR § 60.758(c)(1) or subpart WWW are exceeded; and
 - b. A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
 - 6. Records and data required by this Operating Permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 4.4 and AQR 12.5.2.8/AQR 19.4.3.2]*
 - 7. Should this stationary source, as defined in 40 CFR 68.3, become subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit an RMP by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR 70 or 71. *[AQR 12.5.2.6(d)/AQR 19.4.1.3]*
 - 8. All records and logs, or a copy thereof, shall be kept on-site for a minimum of five (5) years from the date the measurement was taken or data was entered and shall be made available to DAQEM upon request. *[AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]*
 - 9. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. *[AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]*

F. Reporting

- 1. All report submissions shall be addressed to the attention of the Control Officer. *[AQR 12.5.2.8(e)(4), 21.4, and 22.4]*
- 2. All reports shall contain the following: *[AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]*
 - a. a certification statement on the first page, i.e., "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate and complete." (A sample form is available from DAQEM); and
 - b. a certification signature from a responsible official of the company and the date certification.
- 3. The Permittee shall submit quarterly monitoring reports to DAQEM. *[AQR 12.5.2.6(d)/19.4.1.3(c)]*

4. The following requirements apply to quarterly reports: [AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]
 - a. The report shall include a quarterly summary of each item listed in Section III-E-1(a through d), Section III-E-2(a through e) and Section III-E-3(a through j).
 - b. The report shall be based on a calendar quarter, which includes partial calendar quarters.
 - c. The report shall be received by DAQEM within 30 calendar days after the calendar quarter.
5. Regardless of the date of issuance of this Operating Permit, the source shall comply with the schedule for report submissions outlined in Table III-F-1 [AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]:

Table III-F-1: Required Submission Dates for Various Reports

Required Report	Applicable Period	Due Date ¹
Quarterly Report for 1 st Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2 nd Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3 rd Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4 th Calendar Quarter, Any additional annual records required.	October, November, December	January 30 each year
Annual Compliance Certification Report	Calendar Year	January 30 each year
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within one (1) hour of the onset of the event
Excess Emission Report	As Required	As soon as practicable but not to exceed ten (10) calendar days from onset of the event
Deviation Report	As Required	Along with quarterly reports
Performance Testing	As Required	Within 60 days from the end of the test

¹ Each report shall be received by DAQEM on or before the due date listed. If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

6. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit emission limits, applicable permit requirements, and requirements of applicable federal regulations. [AQR 4.4 and AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]

G. Mitigation

1. The source has no federal offset requirements. [AQR 59.1.1]

IV. OTHER REQUIREMENTS

1. The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a CFC or HCFC compound as a working fluid, unless such fluid has been approved for sale in such use by the Administrator. The Permittee shall keep record of all paperwork relevant to the applicable requirements of 40 CFR 82 on site. [40 CFR 82]

**ATTACHMENT 1
 APPLICABLE REGULATIONS**

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

1. NRS, Chapter 445B.
2. Applicable AQR Sections:

Citation	Title
AQR Section 0	Definitions
AQR Section 4	Control Officer
AQR Section 5	Interference with Control Officer
AQR Section 6	Injunctive Relief
AQR Section 8	Persons Liable for Penalties – Punishment: Defense
AQR Section 9	Civil Penalties
AQR Section 10	Compliance Schedule
AQR Section 11	Ambient Air Quality Standards
AQR Section 12	Preconstruction Review for New or Modified Stationary Sources
AQR Section 12.5	Part 70 Operating Permit Requirements (July 1, 2010)
AQR Section 14.1.11 AQR Section 14.1.103	Standards of Performance for New Stationary Sources (NSPS) – Subpart Cc: Standards of Guidelines and compliance for Municipal Solid Waste Landfills Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills
AQR Section 18	Permit and Technical Service Fees
AQR Section 19	40 CFR Part 70 Operating Permits
AQR Section 24	Sampling and Testing - Records and Reports
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 40	Prohibition of Nuisance Conditions
AQR Section 41	Fugitive Dust
AQR Section 42	Open Burning
AQR Section 43	Odors in the Ambient Air
AQR Section 55	Preconstruction review for New or Modified Stationary Sources in the 8- Hour Ozone Nonattainment Area
AQR Section 70	Emergency Procedures
AQR Section 80	Circumvention

3. CAAA, Authority: 42 U.S.C. § 7401, et seq.
4. Applicable 40 CFR Subsections:

Citation	Title
40 CFR 52.21	Prevention of Significant Deterioration (PSD)
40 CFR 52.1470	SIP Rules
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance for New Stationary Sources (NSPS) – Municipal Solid Waste Landfills
40 CFR 60, Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills for New Stationary Sources (NSPS)
40 CFR 63, Subpart AAAA	Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills

Citation	Title
40 CFR 68	Risk Management Plan
40 CFR 70	Federally Mandated Operating Permits
40 CFR 82	Protection of Stratospheric Ozone

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