

CLARK COUNTY
DEPARTMENT OF AIR QUALITY
4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118
Part 70 Operating Permit
Source: 15033
Issued in accordance with the
Clark County Air Quality Regulations
(AQR Section 12.5)

ISSUED TO: Republic Silver State Disposal, Inc.
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, Section 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: February 3, 2016

Expiration Date: February 2, 2021

ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY



Richard D. Beckstead
Manager, Permitting Division
Clark County Department of Air Quality

EXECUTIVE SUMMARY

Republic Silver State Disposal, Inc., Sunrise Municipal Solid Waste Landfill (Sunrise Landfill) is a major source for SO₂ and a minor source for PM₁₀, PM_{2.5}, NO_x, CO, VOC, HAP, H₂S, and NMOC. The source is under SIC Code 4953 – Refuse Systems (NAICS Code 562212 – Solid Waste Landfill) and is located 1½ miles East of the intersection of Vegas Valley Drive and Hollywood Boulevard, Las Vegas, Nevada 89142 (T21S, R62E, Sections 1 and 12) in the Las Vegas Valley hydrographic area 212. Las Vegas Valley is classified as an attainment area source for all regulated air pollutants.

Sunrise Landfill served as the primary municipal solid waste landfill (MSWL) for Clark County from 1951 until October 8, 1993. In 1993 the landfill stopped accepting waste and was permanently closed. Sunrise Landfill is currently collecting landfill gases (LFG) consisting of methane, non-methane organic compounds (NMOC), hazardous air pollutants (HAPs) and H₂S as a result of anaerobic bacterial decomposition of the organic materials in the solid waste. The landfill operates a landfill gas collection system and an open combustion flare with a destruction efficiency of 98%. The collection system is designed to capture up to 1,908 standard cubic feet per minute (scfm) of LFG and the flare has a maximum heat ratings of 57.24 MMBtu/hr and 501,422 MMBtu/year. Currently, approximately 1,908 scfm (~ 75% capture efficiency) of landfill gas is estimated to be controlled. This Part 70 Operating Permit is issued based on the Title V Renewal application submitted on March 16, 2015.

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)

PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC	HAP	NMOC	H ₂ S
4.18	4.18	10.03	62.67	249.20	8.93	6.69	22.90	44.73

Pursuant to AQR 12.5.2, all terms and conditions in Sections I through VI and Attachments 1 and 2 in this permit are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I-1: List of Acronyms and Abbreviations

Acronym	Term
Air Quality	Clark County Department of Air Quality
AQR	Clark County Air Quality Regulations
AST	Aboveground Storage Tank
ATC	Authority to Construct
CAAA	Clean Air Act, as amended, or Clean Air Act Amendments
CEMS	Continuous Emissions Monitoring System
CFC	Chlorofluorocarbon
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
dscf	Dry Standard Cubic Feet
DOM	Date of Manufacturer
EPA	United States Environmental Protection Agency
EU	Emission Unit
H ₂ S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
HCFC	Hydrochlorofluorocarbon
hp	Horse Power
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
MSWL	Municipal Solid Waste Landfill
MW	Megawatt
NAICS	North American Industry Classification System
NMOC	Nonmethane Organic Compounds
NO _x	Nitrogen Oxides
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
OP	Operating Permit
PM _{2.5}	Particulate Matter less than 2.5 microns
PM ₁₀	Particulate Matter less than 10 microns
ppmvd	Parts per Million, Volumetric Dry
PTE	Potential to Emit
QA/QC	Quality Assurance/Quality Control
RMP	Risk Management Plan
scf	Standard Cubic Feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO _x	Sulfur Oxides
SSM	Startup, Shutdown, and Malfunction
TSD	Technical Support Document
U.S.C.	United States Code
VOC	Volatile Organic Compound

II. GENERAL CONDITIONS

A. General Requirements

1. The Permittee shall comply with all conditions of the Part 70 OP. Any permit noncompliance may constitute a violation of the Clark County Air Quality Regulations, Nevada law, and the Clean Air Act, and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; revision; or denial of a permit renewal application. *[AQR 12.5.2.6(g)(1)]*
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)]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. *[AQR 12.5.2.6(h)]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
5. The Permittee agrees to allow inspection of the premises, to which this permit relates, by the Control Officer at any time during the Permittee's hours of operation without prior notice. The Permittee shall not obstruct, hamper or interfere with any such inspection. *[AQR 4.3.3; AQR 4.9; AQR 12.5.2.8(b)]*
6. The Permittee shall allow the Control Officer upon presentation of credentials: *[AQR 4.3 and 12.5.2.8(b)]*
 - a. Have access to and copy any records that must be kept under the conditions of the permit;
 - b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and
 - d. Document alleged violations using devices such as cameras or video equipment.
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. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. A responsible official shall certify the additional information consistent with the requirements of AQR Section 12.5.2.4. *[AQR 12.5.2.2]*
8. The Permittee who has been issued a permit under Section 12.5 shall post such permit in a location which is clearly visible and accessible to the facility's employees and representatives of the department. *[AQR 12.5.2.6(m)]*

B. Modification, Revision, Renewal Requirements

1. No person shall begin actual construction of a New Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an ATC Permit from the Control Officer. *[AQR 12.4.1.1(a)]*
2. The permit may be revised, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, 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)]*
3. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: *[AQR 12.5.2.10(a)]*
 - a. The Permittee has submitted to the Control Officer a complete application for a permit, permit revision, or permit renewal, except that a complete application need not be received before a Part 70 general permit is issued pursuant to Section 12.5.2.20; and
 - b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Section 12.5
4. The Permittee shall not build, erect, install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere reduces or 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 12.5.2.6(i)]*
6. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted. *[AQR 12.5.2.11(b)]*
7. For purposes of permit renewal, a timely application is a complete application that is submitted at least six (6) months and not greater than eighteen (18) months prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 OP until final action is taken on its application for a renewed Part 70 OP. *[AQR 12.5.2.1(a)(2)]*

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall submit all compliance certifications to EPA and to the Control Officer. *[AQR 12.5.2.8(e)(4)]*

2. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or AQRs shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under AQR 12.5 shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *[AQR 12.5.2.6(l)]*
3. 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 revising, 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 Administrator along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*
4. 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 the 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]*
5. The Permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1]*
 - a. The annual emissions inventory must be submitted to Air Quality by March 31 of each calendar year; and
 - 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.

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 in order to maintain compliance with the conditions of this permit. *[AQR 12.5.2.6(g)(2)]*
2. Any person who violates any provision of the AQR, 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 Air Quality is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board and/or the Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1; NRS 445B.640]*

3. Any person aggrieved by an order issued pursuant to AQR Section 9.1 is entitled to review as provided in Chapter 233B of NRS. *[AQR 9.12]*
4. The Permittee shall comply with the requirements of 40 CFR Part 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1(b)(8)]*
5. The Permittee shall certify compliance with terms and conditions contained in the Part 70 OP, including emission limitations, standards, work practices, and the means for monitoring such compliance. *[AQR 12.5.2.8(e)]*
6. The Permittee shall submit compliance certifications annually in writing to the Control Officer (4701 W Russell Road, Suite 200, Las Vegas, Nevada 89118) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, California 94105). A compliance certification for each calendar year will be due on or before January 30th of the following year and shall include the following: *[AQR 12.5.2.8(e)]*
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period. The methods and means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements described in 40 CFR Part 70.6(a)(3). If necessary, the Permittee shall also identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; and
 - c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in subsection II.D.6(b). The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance, as defined under 40 CFR Part 64, occurred.
7. The Permittee shall report to the Control Officer (4701 West Russell Road, Suite – 200, Las Vegas, Nevada 89118) any startup, shutdown, 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 12.5.2.6(d)(4)(B) and AQR 25.6.1]*
 - a. within twenty-four (24) hours of the time the Permittee learns of the excess emissions, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email: airquality@clarkcountynv.gov; and
 - b. within seventy-two (72) hours of the notification required by paragraph (a) above, the detailed written report containing the information required by AQR Section 25.6.3 shall be submitted.

8. The Permittee shall report to the Control Officer with the semi-annual monitoring report all deviations from permit conditions that do not result in excess emissions, including those attributable to malfunction, startup, or shutdown. Reports shall identify the probable cause of each deviation and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*
9. The owner or operator of any source required to obtain a permit under Section 12 shall report to the Control Officer emissions that are in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health, safety or the environment as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered, with a written report submitted within two (2) days of the occurrence. *[AQR 25.6.2]*

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 Air Quality 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 (4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118) not less than 45, nor more than 90, days prior to the anticipated date of the performance test, unless otherwise specified in Section III.D. *[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, to demonstrate compliance with a requirement under 40 CFR Part 60. *[40 CFR Part 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. *[12.5.2.8]*

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 12.5.3]

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

1. Emission Limits

- a. The Permittee shall not allow the actual emissions from each emission unit to exceed the PTE listed in Table III-B-1 per any 12-month consecutive period. [AQR 12.5.2.3(c)]

Table III-B-1: Emission Unit PTE (tons per year)

EU	Description	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP	NMOC ¹	H ₂ S
A01	Flare Stack	4.18	10.03	62.67	249.20	0.26 ²	2.11	0.67	0.40
A02	Fugitives	0	0	0	0	8.67 ²	4.58	22.23	44.33

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

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

- b. The Permittee shall not allow the actual emissions from each emission unit to exceed the PTE listed in Table III-B-2. [AQR 12.5.2.3(c)]

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

EU	Description	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP	NMOC ¹	H ₂ S
A01	Flare Stack	0.95	2.29	14.31	85.00	0.06 ²	0.48	0.15	0.09
A02	Fugitives	0	0	0	0	1.98 ²	1.05	5.08	10.12

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

² 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. Operational 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 Air Quality for higher production limits by demonstrating that exceeding the production limit does not result in any emission rate greater than those listed in either Tables III-B-1 or III-B-2. [AQR 12.5.2.6]
- 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 Air Quality 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. [AQR 12.5.2.6]
- 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 any 12-month consecutive period unless the Permittee receives approval from Air Quality 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. [AQR 12.5.2.6]

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 either 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 fires 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)]
 - i. Action shall be initiated to correct the exceedance within 5 calendar days of the initial exceedance or insufficient air flow measurement; and
 - ii. 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)]
- 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 cap or remove the collection and control system provided all of the following conditions are met: *[40 CFR § 60.32c(d)(2) and 40 CFR § 60.752(b)(2)(v)]*
- i. the landfill shall be a closed landfill as defined in § 60.751. A closure report shall be submitted to the Administrator as provided in § 60.757(d);
 - ii. the collection and control system has been in operation a minimum of 15 years; and
 - iii. following the procedures specified in § 60.754(b), the calculated NMOC gas produced by the landfill is less than 50 megagrams 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)]*

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) though (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 an Air Quality 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]*

D. Testing

1. The Permittee shall use performance testing as an instrument for determining compliance with the performance standards for the collection and control system. *[AQR 12.5.2.6]*
2. The Permittee shall conduct on a quarterly basis, the visible emissions from the combustion flare by employing 40 CFR Part 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 for the net heating value and Method 18 for Btu analysis. *[40 CFR § 60.33c(c)(1), 40 CFR § 60.18(f)(4), and 40 CFR § 60.754(e)]*
4. The Permittee shall conduct on an annual basis a chemical analysis on the landfill gas for methane, NMOC, and H₂S (EU: A01) in accordance to the provisions in EPA approved Methods 25C or 18 (or equivalent) and for the chemical analysis of the landfill gases (EU: A02) in accordance to the provisions in EPA approved Method 21 (or equivalent) or 40 CFR § 60 Appendix A: General Provisions or using an Air Quality approved Performance Test Method. *[AQR 12.5.2.6]*

E. Recordkeeping

1. The Permittee shall maintain records on-site that includes, at a minimum: *[AQR 12.5.2.6(d)]*
 - 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 require semi-annual reporting and include, at a minimum: *[AQR 12.5.2.6(d)]*
 - 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;
 - 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;
 - f. a quarterly summary of the hours of operation of the combustion flare;
 - g. results of the quarterly Method 22 test results of the combustion flare;
 - h. continuous monitoring records of the combustion flare temperature;
 - i. quarterly calculated average of the hourly and each monthly consecutive 12-month total LFG flow (in cubic feet or cubic meters) through the gas collection and control system;
 - j. landfill gas heating value in MMBtu/dscf based on EPA approved methods;
 - k. calculated quarterly average of the heat input to the combustion flare in MMBtu per hour and each monthly consecutive 12-month total;
 - l. monthly estimation of combustion flare emissions and a consecutive 12-month total to be recorded each month;
 - m. annual estimation of NMOC and H₂S fugitive emissions using chemical analysis of LFG and AP-42 default emission factors;
 - n. a quarterly summary describing the deviations, if any, per the SSM plan in the capture and control system;
 - o. 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
 - p. performance test results.
3. 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)]*
 4. The Permittee shall include deviations specified in 40 CFR §63.1965 in its semi-annual and annual reports. Specified deviations include periods when: *[40 CFR §63.1965]*
 - a. the control device operating parameter boundaries described in 40 CFR § 60.758(c)(1) or subpart WWW are exceeded; and
 - b. 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.
 5. Records and data required by this OP 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]*
 6. 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)]

7. 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 Air Quality upon request. [AQR 12.5.2.6(d)]
8. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. [AQR 12.5.2.6(d)]

F. Reporting

1. All report submissions shall be addressed to the attention of the Control Officer. [AQR 12.5.2.6(d), AQR 14.3, AQR 21.4, and AQR 22.4]
2. All reports shall contain a certification of truth, accuracy, and completeness by the responsible official. [AQR 12.5.2.6 and AQR 12.5.2.6(l)]
3. The Permittee shall submit semi-annual monitoring reports to the Control Officer. [AQR 12.5.2.6]
4. The following requirements apply to semi-annual reports: [AQR 12.5.2.6(d)]
 - a. The report shall include a summary of each item listed in Section III-E-2.
 - b. The report shall include summaries of any permit deviations, their probable cause, and corrective or preventative actions taken.
 - c. The report shall be submitted to Air Quality within 30 calendar days after the end of the reporting period.
5. Regardless of the date of issuance of this permit, the schedule for the submittal of reports to the Control Officer shall be as outlined in Table III-F-1: [AQR 12.5.2.6(d)]

Table III-F-1: Reporting Schedule

Required Report	Applicable Period	Due Date
Semi-annual Report for 1st Six-Month Period	January, February, March, April, May, June	July 30 each year ¹
Semi-annual Report for 2 nd Six-Month Period, Any additional annual records required.	July, August, September, October, November, December	January 30 each year ¹
Annual Compliance Certification Report	Calendar Year	January 30 each year ¹
Annual Emission Inventory Report	Calendar Year	March 31 each year ¹
Notification of Malfunctions, Startup, Shutdowns or Deviations with Excess Emission	As Required	Within 24 hours of the Permittee learns of the event
Report of Malfunctions, Startup, Shutdowns or Deviations with Excess Emission	As Required	Within 72 hours of the notification
Deviation Report without Excess Emissions	As Required	Along with semi-annual reports ¹
Performance Testing	As Required	Within 60 days from the end of the test ¹

¹If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittals are 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 conditions, permit requirements, and requirements of applicable federal regulations. *[AQR 4.4 and AQR 12.5.2.6]*

G. Mitigation

1. The source has no federal offset requirements. *[AQR 12.7]*

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 Part 82 on site. *[40 CFR Part 82]*

ATTACHMENT 1 – APPLICABLE REGULATIONS

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

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

Citation	Title
AQR Section 00	Definitions
AQR Section 4	Control Officer
AQR Section 5	Interference with Control Officer
AQR Section 8	Persons Liable for Penalties – Punishment: Defense
AQR Section 9	Civil Penalties
AQR Section 10	Compliance Schedule
AQR Section 12.4	ATC Application and Permit Requirements for Part 70 Sources
AQR Section 12.5	Part 70 OP Requirements
AQR Section 13.2.b.59	MACT - National Emission Standard for Hazardous Air Pollutants for Municipal Solid Waste Landfills
AQR Section 18	Permit and Technical Service Fees
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 28	Fuel Burning Equipment
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 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 Part 52.21	PSD
40 CFR Part 52.1470	SIP Rules
40 CFR Part 60, Subpart A	NSPS – General Provisions
40 CFR Part 60, Subpart Cc	NSPS – Standards of Performance for Standards of Guidelines and compliance for Municipal Solid Waste Landfills
40 CFR Part 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR Part 63, Subpart AAAA	National Emission Standard for Hazardous Air Pollutants for Municipal Solid Waste Landfills
40 CFR Part 70	Federally Mandated Operating Permits
40 CFR Part 82	Protection of Stratospheric Ozone