

TECHNICAL SUPPORT DOCUMENT
(STATEMENT of BASIS)
for Permit Issuance

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
APPLICATION FOR A PART 70 OPERATING PERMIT RENEWAL

SUBMITTED BY:

Golder Associates, Inc.
and
REPUBLIC SILVER STATE DISPOSAL, INC.

For:

SUNRISE MUNICIPAL SOLID WASTE LANDFILL

Part 70 Operating Permit Number: 15033

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



Clark County
Department of Air Quality
Permitting Division

February 3, 2016

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 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 generated 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. The potential emissions for the source are shown in Table 1.

Table 1: Maximum Source PTE (tons per year)

	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC	HAP	NMOC	H ₂ S
Non-Fugitive PTE	4.18	4.18	10.03	62.67	249.20	0.26	2.11	0.67	0.40
Fugitive PTE	0	0	0	0	0	8.67	4.58	22.23	44.33
Totals	4.18	4.18	10.03	62.67	249.20	8.93	6.69	22.90	44.73

Air Quality has delegated authority to implement the requirements of the Part 70 operating permit program.

The initial Part 70 Operating Permit was issued on August 16, 2004, renewed on October 5, 2010, and revised on June 20, 2014.

Based on the information submitted by the applicant and a technical review performed by the Air Quality staff, Air Quality proposes the issuance of a Part 70 Operating Permit to Republic Silver State Disposal, Inc., Sunrise Municipal Solid Waste Landfill.

The Landfill is subject to 40 CFR Part 60, Subpart Cc which incorporates some provisions of 40 CFR Part 60, Subpart WWW.

This TSD accompanies the proposed Part 70 Operating Permit for Sunrise Municipal Solid Waste Landfill.

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I. ACRONYMS

Table I: Acronyms

Acronym	Term
Air Quality	Clark County Department of Air Quality
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
°C	Degrees Celsius
CAAA	Clean Air Act, as amended
CAM	Compliance Assurance Monitoring
CFR	United States Code of Federal Regulations
CH ₄	Methane
CO	Carbon Monoxide
DEM	Digital Elevation Model
EPA	United States Environmental Protection Agency
EU	Emission Unit
°F	Degrees Fahrenheit
ft ³ /yr	Cubic foot per year
GCCS	Gas Collection and Control System
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
MSWL	Municipal Solid Waste Landfill
N/A	Not Applicable
NAICS	North American Industry Classification System
NMOC	Non-Methane Organic Compounds
NO _x	Nitrogen Oxides
NRS	Nevada Revised Statutes
OP	Operating Permit
PM _{2.5}	Particulate Matter less than 2.5 microns
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
ppmvd	Parts per Million, Volumetric Dry
PSD	Prevention of Significant Deterioration
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
SO _x	Sulfur Oxides
SSM	Startup, Shutdown, and Malfunction
USGS	United States Geological Survey
VOC	Volatile Organic Compound

II. SOURCE INFORMATION

A. General

Permittee	Republic Silver State Disposal, Inc. Sunrise Municipal Solid Waste Landfill
Mailing Address	770 East Sahara Avenue, Las Vegas, Nevada 89104
Contacts	Todd Whittle
Phone Number	(702) 599-5537
Fax Number	(702) 599-5585
Source Location	1½ miles east of the intersection of Vegas Valley Drive and Hollywood Boulevard, Las Vegas, Nevada 89142
Hydrographic Area	212
Township, Range, Section	T21S, R62E, Section 1 and 12
SIC Code	4953 – Refuse Systems
NAICS Code	562212 – Solid Waste Landfill

B. Description of Process

The Sunrise Landfill is actively collecting landfill gases consisting of CH₄, NMOC, HAPs, and H₂S generated 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 air assisted combustion flare (EU: A01) with open flare design capable of burning 57.24 MMBtu/hr of collected landfill gases. There are 34 collection wells, of which 23 are active at this time. The collection system is designed to capture up to 1,908 scfm and the flare has a maximum heat input rate of either 57.24 MMBtu/hr or 501,422 MMBtu/yr. Currently, approximately 1,908 scfm (~75% capture efficiency) of landfill gas is collected and 640 scfm (~25%) is calculated as fugitive emission (EU: A02). The collected gases, which are from the decomposing waste, are burned by a flare that serves as the control device. This reduces the amount of fugitive emissions from the landfill and overall emissions. There have been many studies indicating that landfills in dry arid areas generate less than the default EPA emission estimates. This is due to a lack of moisture in the refuse, which reduces microbial decomposition of the waste.

The composition of landfill gas is typically 50% carbon dioxide and 50% methane, with trace amounts of non-methane organic compounds. Typical fugitive emissions generated from decomposing wastes in landfill include CH₄, NMOC (expressed as hexane), HAPs, VOCs, and H₂S. Sunrise Landfill has a higher percentage of H₂S gas that is generated. The specific emission generation potential for each landfill varies depending on site specific conditions such as humidity, rainfall, landfill depth, soil pH, temperature, as well as the types of waste deposited in the landfill. These emissions are fugitive until a collection and control system is added.

The wells are located throughout the productive areas of the 750 acre site. The collection wells are connected to a central collection header in a phased approach, which directs gas to the flare-blower station. The collection system has a blower capable of drawing 3,000 scfm from the extraction well network. The collected gas is passed through a knock out drum to remove most remaining condensate before entering the combustion flare. The flare is operated in a manner to achieve at least a 98% to 99.7% destruction efficiency of the targeted pollutants. Collateral combustion emissions from the flare burner are NO_x, SO₂, CO, PM₁₀, and PM_{2.5}.

C. Permitting History

There was no significant revision issued to the source after the previous renewal of the OP. However, permit revisions occurred during the current permit term. The following represents permitting activities during the term of the current permit:

Table II-C-1: Changes Made During the Current Permit Period

Issue Date	Description	Activity
06/20/14	Title V Significant Revision	An increase in the hourly SO ₂ emission rate from the flare stack (EU: A01) from 56.89 to 85 pounds; removal of 197 hp emergency generator (EU: B01); update to the reporting requirements for upsets/breakdowns from 1 hour to 24 hours; removal of quarterly reporting requirements; and update the legal name of the source.

D. Current Permitting Action

Sunrise Landfill requests that the provisions of the SSM plan, dated January 16, 2004, be incorporated into the Part 70 OP. Air Quality will incorporate this SSM plan into the Part 70 OP as an attachment. As such, if the SSM is revised, the Part 70 OP will not have to be revised to make the necessary changes.

E. Operating Scenario

Sunrise Landfill has a gas collection and control system that consists of 34 vertical collection wells. The wells are connected to a series of pipes that take the gas to the central collection header, which directs the gas to the flare blower station. The collection system is capable of drawing 3,000 scfm of landfill gas from the extraction well network although approximately 1,908 scfm is actually drawn; based on LANDGem estimates. The collected gas passes through a knock out drum to remove most of the remaining condensate before entering the combustion flare. The flare operates in manner to achieve at least a 98% to 99.7% destruction efficiency of the targeted pollutants. The collateral combustion emissions from the flare burner are PM₁₀, PM_{2.5}, CO, NO_x, and SO_x.

The flare is equipped with a Programmable Logic Control system or equivalent control system. The control system will automatically activate the propane pilot system. Upon successful ignition, the blowers activate and the landfill gas will ignite. In the event of flame outs, the gas flow is stopped until the flame can be re-ignited.

The following items operate as part of the flare control system: gas flow meter, thermocouples to sense minimum high and low temperature alarm conditions, chart recorder for temperature and gas flow, automatic propane system, and automatic blower controls.

III. Emission Information

A. Source-wide Potential to Emit

Sunrise Landfill is a major source for SO₂ and a non-major source for PM₁₀, PM_{2.5}, NO_x, CO, VOC, HAP, NMOC, and H₂S.

Table III-A-1: Source-wide PTE (tons per year)

Pollutants	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP ¹	NMOC	H ₂ S
Flare Stack	4.18	10.03	62.67	249.20	0.26	2.11	0.67	0.40
Total Non-Fugitive PTE	4.18	10.03	62.67	249.20	0.26	2.11	0.67	0.40
Fugitive Emissions from Landfill Gas ²	0	0	0	0	8.67	4.58	22.23	44.33
PTE Totals	4.18	10.03	62.67	249.20	8.93	6.69	22.90	44.73

¹25 tons per year for a combination of all HAPs, but no single HAP exceeding 10 tons per year.

B. Equipment Description

Sunrise Landfill consists of one Gas Collection and Combustion Flare that is air assisted and has an open flare design that burns at 57.24 MMBtu/hour.

C. Emission Units and PTE

Table III-C-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #	SCC
A01	Landfill Gas Collection and Combustion Flare, Air Assisted, Open Flare Design	57.24 MMBtu/hr	LFG Specialties, LLC	PCF1230110	1700	50100410
A02	Landfill Fugitive Emissions	N/A	N/A	N/A	N/A	50100402

Table III-C-2: Source 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
Totals		4.18	10.03	62.67	249.20	8.93	6.69	22.90	44.73

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

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

Table III-C-3: Source Potential to Emit (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
Totals		0.95	2.29	14.31	85.00	2.04	1.53	5.23	10.21

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

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

D. Testing

All performance tests shall be conducted in accordance with 40 CFR 60 Appendix A – Test Methods, Air Quality Performance Testing Frequency Guidelines (as revised), and Air Quality Guideline on Performance Testing (as revised). Sunrise Landfill is responsible for complying with all applicable performance testing requirements in these standards and guidelines, regardless of whether this permit includes conditions corresponding to every specific requirement. This required performance testing will be performed using methods listed in Table III-D-1. The initial performance tests for the gas flow and rating (Btu) of the combustion flare was completed April 2004. The initial performance testing for surface monitoring of fugitive emissions was completed on May 2002. Any additional required testing will be performed using the following methods:

Table III-D-1: Performance Testing Protocol Requirements

EU	Description	NSPS Applicability	Compliance Standard	Performance Test	Frequency
A01	Landfill Gas Collection and Combustion Flare, Air Assisted, Open Flare Design	40 CFR Part 60 Subpart Cc	Opacity	Method 22	Quarterly
			Net heating value (Btu Analysis)	Method 3C Method 18	Quarterly
			Chemical analysis of Methane, NMOC, & H ₂ S	Method 25C or Method 18	Annually
A02	Landfill Fugitive Emissions	40 CFR Part 60 Subpart Cc	Chemical analysis of landfill gases	Method 21	Annually

E. Monitoring

Sunrise Landfill is subject to 40 CFR §60 Subpart Cc and the relevant section of 40 CFR §60 Subpart WWW. The facility per Subpart Cc, has installed a GCCS that was designed to capture approximately 75% of the landfill gases. The remaining 25% of the landfill gases are considered fugitive emissions. The open combustion flare is operated in a manner that achieves at least a 98% destruction efficiency of the target pollutants, where the collateral combustion emissions from the combustion flare burner will include NO_x, SO₂, CO, and PM₁₀.

Sunrise Landfill, in order to comply with 40 CFR §60 Subpart Cc, must monitor the GCCS and the combustion flare for efficiency, monitor and analyze gases from the GCCS, and monitor and analyze fugitive gases from the surface of the landfill. Each well head of the GCCS must have sampling ports, thermometers, and pressure gauges. On a monthly basis nitrogen, oxygen, and the temperature must be monitored to ensure that these parameters are within regulated limits.

At the gas collection header of the GCCS, Sunrise Landfill utilizes a pressure gauge. On an annual basis landfill gas is collected and analyzed for NMOC, methane, and H₂S. Using these results and AP-42 default emissions, the source must demonstrate that at least 75% of the pollutants are being collected and going to the combustion flare. The combustion flare must have a heat sensing device at the pilot light to indicate the continuous presence of a flame and measures temperatures to ensure they are within acceptable limits. The LFG flow rate to the combustion flare must be monitored, at a minimum, every 15 minutes. The bypass flow to the combustion flare must have a lock and key configuration and be visually inspected monthly. Quarterly inspections for visible emissions must be performed.

The fugitive landfill emissions must be monitored to demonstrate that the methane levels do not go over the regulated amount of 500 ppm from the background. The facility must check the integrity of the landfill cover and implement repairs as necessary on a monthly basis.

The required monitoring requirements will be performed using methods listed in Table III-D-2:

Table III-D-2: Monitoring Requirements

EU	Description	NSPS Applicability	Compliance Standard	Performance Test	Frequency
A01	Landfill Gas Collection and Combustion Flare, Air Assisted, Open Flare Design	40 CFR Part 60 Subpart Cc	Levels less than 20% Nitrogen or 5% Oxygen at each well	Method 3C	Monthly
			Flow rate and exit velocity	Method 2E	Quarterly
A02	Landfill Fugitive Emissions	40 CFR Part 60 Subpart Cc	Methane	Method 21	Quarterly

IV. REGULATORY REVIEW

A. Local Regulatory Requirements

Air Quality has determined that the following public law, statutes and associated regulations are applicable:

1. CAAA, Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the CFR; including Part 70 and others;
3. NRS, Chapter 445; Sections 401 through 601;
4. Portions of the AQR included in the SIP for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from ATC permits and Section 12.4 Operating Permits issued by Air Quality are federally enforceable because these permits were issued pursuant to SIP-included sections of the AQR; and
5. Portions of the AQR not included in the SIP. These locally applicable requirements are locally enforceable only.

The NRS and CAAA are public laws that establish the general authority for the Regulations mentioned.

The Air Quality Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No. 234. AQR Section 19 - Part 70 Operating Permits [Amended 07/01/04] details the Clark County Part 70 Operating Permit Program. On September 20, 2010, Clark County submitted a revision to the operating permit program (AQR 12.5) pursuant to 40 CFR Part 70.4(i)(2). EPA has not acted on that request yet. These regulations may be accessed on the Internet at: http://www.clarkcountynv.gov/depts/AirQuality/Pages/Rules_CurrentRulesandRegulations.aspx

Local regulations contain sections that are federally enforceable and sections that are locally enforceable only. Locally enforceable only rules have not been approved by EPA for inclusion into the State Implementation Plan (SIP). Requirements and conditions that appear in the Part 70 OP which are related only to non-SIP rules are notated as locally enforceable only.

Discussion: Sunrise Landfill is major source for SO₂. As part of the original New Source Review Analysis all of these emissions triggered notice of proposed action. This proposed renewal will also trigger notice of proposed action.

Clark County Department of Air Quality – Air Quality Regulations and SIP status

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire source
1. Definitions	“Affected Facility”, “Dust”, “Existing Gasoline Station”, “Fumes”, “Mist”, “New Gasoline Stations”, “New Source”, “Single Source”, “Standard Conditions”, “Uncombined Water”.	Yes	entire source
4. Control Officer	all subsections 4.7.3 and 4.12.1 through 4.12.3 in SIP	partial	entire source
5. Interference with Control Officer	all subsections	yes	entire source
6. Injunctive Relief	all subsections	yes	entire source
7. Hearing Board and Hearing Officer	all subsections	no	entire source
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire source
9. Civil Penalties	all subsections	no	entire source
10. Compliance Schedule	when applicable; applicable subsections	yes	entire source
12.0. Applicability, General Requirements and Transition Procedures	all subsections	yes	entire source
12.2 Prevention of Significant Deterioration in Attainment Areas	all subsections	yes	entire source

12.3 Permit Requirements for Major Sources in Nonattainment Areas	all subsections	yes	entire source
12.4 Authority to Construct Permit Requirements for Part 70 Sources	all subsections	yes	entire source
12.5 Part 70 Operating Permit Requirements	all subsections	yes	entire source
12.6 Confidentiality	all subsections	yes	entire source
12.7 Emission Reduction Credits	all subsections	yes	entire source
12.9 Annual Emission Inventory Requirements	all subsections	yes	entire source
12.10 Continuous Monitoring Requirements for Stationary Sources	all subsections	yes	entire source
13. Emission Standards for Hazardous Pollutants	Delegated Program CCAQR Section 13.2(b)(59): Subpart AAAA National Emission Standards for Hazardous Air Pollutant for Municipal Solid Waste Landfills	no	Landfill
18. Permit and Technical Service Fees	all subsections 18.1 through 18.5.2 and 18.6 through 18.12 in SIP	partial	entire source
21. Acid Rain Permits	all subsections	no	entire source
22. Acid Rain Continuous Emission Monitoring	all subsections	no	entire source
25.1 Upset/Breakdown, Malfunctions (1981)	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions	no	entire source
25.2 Upset/Breakdown, Malfunctions (1981)	§ 25.2 Reporting and Consultation	yes	entire source
26. Emission of Visible Air Contaminants (1981)	§ 26.1 Limit on opacity (\leq an average of 20 percent for a period of more than 6 consecutive minutes)	yes	entire source
27. Particulate Matter from Process Weight Rate	all subsections	yes	entire source
28. Fuel Burning Equipment	Emission Limitations for PM	yes	entire source
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire source
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire source
42. Open Burning	§ 42.2	no	entire source
43. Odors In the Ambient Air	§ 43.1 Prohibitions coded as Section 29	no	entire source
52. Gasoline Dispensing Facilities	Repealed by County	yes	entire source

70. Emergency Procedures	all subsections	yes	entire source
80. Circumvention	all subsections	yes	entire source

AMBIENT AIR QUALITY STANDARDS – No changes to the landfill; there the previous modeling from the TDS dated October 2010 was used.

Discussion: Sunrise Landfill is a major source located in Hydrographic Area 212 (Las Vegas Valley). The source consists of a combustion flare, fugitive emissions, and an emergency generator. Minor source baseline data for SO₂ (June 29, 1979) have been triggered in Hydrographic Area 212.

Air Quality modeled the source using AERMOD to track the PSD increment consumption. Stack data submitted by the applicant were supplemented with information available for similar emission units. Five years (1999 to 2003) of meteorological data from the McCarran Station and Desert Rock Station were used in the model. USGS 7.5-minute DEM terrain data was used to calculate elevations. Table III-A-3 presents the results of the modeling.

Table III-A-3: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source (µg/m ³)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO ₂	3-hour	149.52 ¹	679640	4001811
SO ₂	24-hour	57.52 ¹	679640	4001811
SO ₂	Annual	14.46	679640	4001811
NO _x	Annual	0.58	679640	4001811

¹Modeled High 2nd High Concentration

B. Federally Applicable Regulations

Air Quality has determined that the following federal regulations are applicable:

1. CAAA, Authority: 42 U.S.C. § 7401, et seq
2. CFR(s)

40 CFR PART 60 – STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES:

Subpart A – General Provisions

40 CFR § 60.7 – Notification and record keeping.

Discussion: This regulation requires notification to Air Quality of modifications, opacity testing, records of malfunctions of process equipment and/or continuous monitoring device, and performance test data. These requirements are found in the Part 70 OP. Air Quality requires records to be maintained for five years, a more stringent requirement than the two (2) years required by § 60.7.

40 CFR § 60.8 – Performance tests.

Discussion: These requirements are found in the Part 70 OP. Notice of intent to test; the applicable test methods, acceptable test method operating conditions, and the requirement for three runs are outlined in this regulation. Air Quality requirements for initial performance testing are identical to § 60.8. Air Quality also requires periodic performance testing on emission units based upon throughput or usage. More discussion is in this document under the compliance section.

40 CFR § 60.11 – Compliance with standards and maintenance requirements.

Discussion: Sunrise Landfill is subject to one NSPS standard: Subpart Cc – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills for the landfill and relevant sections of Subject WWW – Standards of Performance for Municipal Solid Waste Landfills for the combustion flare. Compliance requirements for these standards are discussed in corresponding sections.

40 CFR § 60.12 – Circumvention.

Discussion: This prohibition is addressed in the Part 70 OP. This is also local rule § 80.1.

40 CFR § 60.13 – Monitoring requirements.

Discussion: The Part 70 OP contains the monitoring conditions.

40 CFR § 60.18 – General control device and work practice requirements.

Discussion: The Part 70 OP contains control device and work practice requirements by reference in 40 CFR 60.33c(1).

SUBPART Cc – EMISSION GUIDELINES AND COMPLIANCE TIMES FOR MUNICIPAL SOLID WASTE LANDFILLS

40 CFR § 60.30c – Scope

Discussion: Subpart Cc applies to the Sunrise Landfill for emission guidelines and compliance times for the control of certain designated pollutants from certain designated municipal solid waste landfills.

40 CFR § 60.32c – Designated facilities

Discussion: Sunrise Landfill is a designated facility and is subject to the conditions of Municipal Solid Waste Landfill.

40 CFR § 60.33c – Emission guidelines for municipal solid waste landfill emissions

Discussion: Sunrise Landfill is subject the emission guidelines and meets the control device design and operation of this part. The installed collection and control system meets the conditions provided in §60.752(b)(2)(ii).

40 CFR § 60.34c – Test methods and procedures

Discussion: Sunrise Landfill is subject to all test and procedures of this part. The Sunrise Landfill shall meet the operational standards in §60.753; the compliance provisions in §60.755; and the monitoring provisions in §60.756.

40 CFR § 60.35c – Reporting and recordkeeping guidelines

Discussion: Sunrise Landfill is subject to the reporting and recordkeeping guidelines. The Permit includes the applicable recordkeeping and reporting provisions listed in §§60.757 and 60.758.

40 CFR § 60.36c – Compliance times

Discussion – Sunrise Landfill has met the compliance times specified in this subsection.

SUBPART WWW – STANDARDS OF PERFORMANCE FOR MUNICIPAL SOLID WASTE LANDFILLS (Complying with Only)

40 CFR § 60.752 Standards for air emissions from municipal solid waste landfills

Discussion – Sunrise Landfill is subject to 40 CFR 60.752(b)(2)(ii), (b)(2)(iii), and (b)(2)(v) standards for air emissions by reference in 40 CFR § 60.32c(d)(2) and 40 CFR § 60.33c(b).

40 CFR § 60.753 Operational standards for collection and control systems

Discussion – Sunrise Landfill is subject to the operational standards for collection and control systems by reference in 40 CFR § 60.34c. The operational standards of 60.753 (a through g) are incorporated in the Operating Permit. The operational standards of Sections (a) refers to collection system from each area in reference to active versus final grade of MSW landfill, Section (b) is the operational standard for each wellhead. Section (c) is the operational standard for the interior wellheads, Section (d) is the operational standard for the surface methane concentration, Section (e) is the operational standard for venting of collected gases if the system is inoperable, Section (f) is the operational standard of operating the control or treatment system continuously, and Section (g) is the operational standard for monitoring of Sections (b), (c), or (d).

40 CFR § 60.754 Test methods and procedures

Discussion – Sunrise Landfill is subject to 40 CFR § 60.754 sections (a), (b), (c), and (e) for NMOC test methods and procedures by reference in 40 CFR § 60.33c(e)(1)(i) and 40 CFR § 60.34c.

40 CFR § 60.755 Compliance provisions

Discussion – Sunrise Landfill is subject to the compliance provisions by reference in 40 CFR § 60.34c.

40 CFR § 60.756 Monitoring of operations

Discussion – Sunrise Landfill is subject to 40 CFR § 60.756 sections (a), (c), (d), and (f) for the monitoring of operations by reference in 40 CFR § 60.34c.

40 CFR § 60.757 Reporting

Discussion – Sunrise Landfill is subject to reporting by reference in 40 CFR § 60.35c.

40 CFR § 60.758 Repordkeeping requirements

Discussion – Sunrise Landfill is subject to repordkeeping requirements by reference in 40 CFR § 60.35c.

40 CFR § 63 SUBPART AAAA – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MUNICIPAL SOLID WASTE LANDFILLS

40 CFR § 63.1935 Am I subject to this subpart

Discussion – Sunrise Landfill is subject to 40 CFR § 63.1935(a)(3) of this subpart.

40 CFR § 64 – COMPLIANCE ASSURANCE MONITORING

40 CFR § 64.2 – Applicability

Discussion – Sunrise Landfill is not applicable to CAM. CAM does not apply to the landfill combustion flare because a control device is not used to achieve compliance with the emission limit.

40 CFR § 72 – ACID RAIN PROGRAM GENERAL PROVISIONS

40 CFR § 72.6 – Applicability

Discussion – Sunrise Landfill is not subject because it does not include any fossil fuel-fired electric utility unit as defined in 40 CFR Part 72; therefore, the provisions of this regulation do not apply.

40 CFR § 73 – ACID RAIN SULFUR DIOXIDE ALLOWANCE SYSTEM

Discussion – Sunrise Landfill is not subject to this regulation based on the 40 CFR Part 72.6.

40 CFR § 75 – CONTINUOUS EMISSION MONITORING

Discussion – Sunrise Landfill is not subject to the Acid Rain emission limitations of 40 CRF Part 72; therefore, the facility is not subject to the monitoring requirements of 40 CFR Part 75.

V. COMPLIANCE

12.5.2.8 Requirements for compliance certifications:

1. Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the Air Quality Compliance Reporting Supervisor shall be as follows:

Table V-1: Required Submission Dates for Various Reports

Required Report	Applicable Period	Due Date ¹
Semi-annual Report for 1st Six-Month Period	January, February, March, April, May, June	July 30 each year
Semi-annual Report for 2 nd Six-Month Period, Any additional annual records required.	July, August, September, 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
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
Performance Testing	As Required	Within 60 days from the end of the test.

¹Each report shall be received by Air Quality 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.

2. A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.
3. A schedule for submission of compliance certifications during the permit term.
4. A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

A. Compliance Summary – Clark County Air Quality Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 0	Definitions.	Applicable – Sunrise Landfill will comply with all applicable definitions as they apply.	Sunrise Landfill will meet all applicable test methods should new definitions apply.	Sunrise Landfill complies with applicable requirements.
AQR Section 4	Control Officer.	Applicable – The Control Officer or his representative may enter into Sunrise Landfill property, with or without prior notice, at any reasonable time for purpose of establishing compliance.	Sunrise Landfill will allow the Control Officer to enter the property as required.	Sunrise Landfill complies with applicable requirements.
AQR Section 5	Interference with Control Officer	Applicable – Sunrise Landfill will not hinder. Obstruct, delay. Resist, interfere with, or attempt to interfere with, the control officer.	Sunrise Landfill will allow the control officer to perform any duty by the regulations.	Sunrise Landfill complies with applicable requirements.
AQR Section 8	Persons Liable for Penalties	Applicable – Sunrise Landfill and employees will be individually and collectively liable to any penalty or punishment from Air Quality.	Sunrise Landfill will adhere to the rules stipulated in applicable AQR.	Sunrise Landfill complies with applicable requirements.
AQR Section 9	Civil Penalties	Applicable – The rule stipulates penalties for AQR violations.	Sunrise Landfill will adhere to the rules stipulated in applicable AQR.	Sunrise Landfill complies with applicable requirements.
AQR Section 10	Compliance Schedule	Applicable – Any existing source not in compliance with emission limitations shall submit a compliance schedule.	Sunrise Landfill will adhere to emission limitations and submit a compliance schedule if those limits are exceeded.	Sunrise Landfill complies with applicable requirements.
AQR Section 12.2	General application requirements for construction of a new or modified source of a pollutant in attainment areas	Applicable – Sunrise Landfill must apply for and receive an ATC before modifying.	As applicable, any proposed modifications will include an application and receipt of an ATC.	Sunrise Landfill complies with applicable requirements.
AQR Section 12.4	ATC application and Permit Requirements for Part 70 Sources	Applicable – Sunrise Landfill applied for an ATC from Air Quality.	Sunrise Landfill applied for, and received, ATC permits from Air Quality. Sun Peak Station shall comply with the requirements for ATCs.	Sunrise Landfill complies with applicable requirements.
AQR Section 12.5	Requirements for Part 70 Permits	Applicable – Sunrise Landfill is a major stationary source. Under Part 70, renewal applications are due no earlier than 18 months and no later than 6 months of the expiration date of the Part 70 permit.	Sunrise Landfill submitted the initial Part 70 permit application timely and the renewal application is being submitted at least 6 months prior to the expiration date of the Part 70 permit.	Sunrise Landfill complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 12.9	Annual Emission Inventory Requirement	Applicable – Sunrise Landfill shall complete and submit an annual emissions inventory.	Annual emission inventories shall be submitted by March 31 each year.	Sunrise Landfill complies with applicable requirements.
AQR Section 13.2(b)(1) Subpart A	MACT – General Provisions	Applicable – Sunrise Landfill is an affected facility under the regulations. Section 13 is locally enforceable; however, the MACT standards referenced are federally enforceable.	Applicable monitoring, recordkeeping and reporting requirements.	Sunrise Landfill complies with applicable requirements
AQR Section 13.2(b)(59) Subpart AAAA	National Emission Standard for Hazardous Air Pollutants – Municipal Solid Waste Landfills	Applicable – Sunrise Landfill was constructed prior after November 8, 1987.	Applicable compliance, monitoring, recordkeeping, and reporting requirements.	Sunrise Landfill complies with applicable requirements.
AQR Section 14.1(b)(1) Subpart A	NSPS – General Provisions	Applicable – Sunrise Landfill is an affected facility under the regulations. Section 14 is locally enforceable; however, the NSPS standards referenced are federally enforceable.	Applicable monitoring, recordkeeping and reporting requirements.	Sunrise Landfill complies with applicable requirements.
AQR Section 14.1(b)(76) Subpart WWW as referenced in Subpart Cc	New Source Performance Standards – Standards of Performance for Municipal Solid Waste Landfills	Not Applicable – Sunrise Landfill is not an affected facility under this regulation, however by reference the monitoring, recordkeeping, and reporting must be followed for compliance with 40 CFR § 60 Subpart Cc.	Not Applicable.	Not Applicable.
AQR Section 18	Permit and Technical Service Fees	Applicable – Sunrise Landfill will be required to pay all required/applicable permit and technical service fees.	Sunrise Landfill is required to pay all required/applicable permit and technical service fees.	Sunrise Landfill complies with applicable requirements.
AQR Section 25	Upset/Breakdown, Malfunctions	Applicable – Any upset, breakdown, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to Control Officer. Section 25.1 is locally and federally enforceable.	Any upset, breakdown, emergency conditions, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within one (1) hour of onset of such event.	Sunrise Landfill complies with applicable requirements.
AQR Section 26	Emissions of Visible Air Contaminants	Applicable – Opacity for the Sunrise Landfill Combustion Flare must not exceed 20 percent for more than 6 consecutive minutes.	Compliance determined by EPA Method 9.	Sunrise Landfill complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 40	Prohibition of Nuisance Condition	Applicable – No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance. Section 40 is locally enforceable only.	Sunrise Landfill air contaminant emissions are controlled by pollution control devices in order not to cause a nuisance.	Sunrise Landfill complies with applicable requirements.
AQR Section 41	Fugitive Dust	Applicable – Sunrise Landfill shall take necessary actions to abate fugitive dust from becoming airborne.	Sunrise Landfill utilizes appropriate best practices to not allow airborne fugitive dust.	Sunrise Landfill complies with applicable requirements.
AQR Section 42	Open Burning	Applicable – In event Sunrise Landfill burns combustible material in any open areas, such burning activity will have been approved by Control Officer in advance. Section 42 is a locally enforceable rule only.	Sunrise Landfill will contact the Control Officer and obtain approval in advance for applicable burning activities as identified in the rule.	Sunrise Landfill complies with applicable requirements.
AQR Section 43	Odors in the Ambient Air	Applicable – An odor occurrence is a violation if the Control Officer is able to detect the odor twice within a period of an hour, if the odor causes a nuisance, and if the detection of odors is separated by at least fifteen minutes. Section 43 is a locally enforceable rule only.	Sunrise Landfill will not operate its facility in a manner which will cause odors. Sunrise Landfill is fugitive emissions are controlled by a capture system and a combustion flare.	Sunrise Landfill complies with applicable requirements.
AQR Section 70.4	Emergency Procedures	Applicable – Sunrise Landfill submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 12.5 Operating Permit Application.	Sunrise Landfill submitted an emergency standby plan and received the Section 12.5 Operating Permit.	Sunrise Landfill complies with applicable requirements.
AQR Section 80	Circumvention	Applicable – Sunrise Landfill will not build any equipment to conceal any emissions which might result in violation of an applicable regulation.	Sunrise Landfill will apply for permits as needed and notify Air Quality of any changes in emissions.	Sunrise Landfill complies with applicable requirements.
AQR Section 94	Permitting and Dust Control for Construction Activities	Applicable – Sunrise Landfill will need to apply for dust control permits in event construction activity greater than ¼ acre (aggregate) or trench at least 100 feet in length (and aggregate acreage greater than ¼ acre).	Sunrise Landfill will apply for permits as needed during construction and conform to required best management practices in dust control permits.	Sunrise Landfill complies with applicable requirements.
NRS Chapter 445B	Nevada Revised Statutes, Air pollution	Applicable – Sunrise Landfill shall comply with applicable regulations.	Sunrise Landfill complies with applicable regulations.	Sunrise Landfill complies with applicable requirements.

B. Compliance Summary – Federal Air Quality Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR 52.21	PSD	Applicable – Sunrise Landfill PTE > 100 TPY and is listed as one of the 28 source categories.	BACT analysis, air quality analysis using modeling, and visibility and additional impact analysis performed for original ATC permits.	Sunrise Landfill complies with applicable sections as required by PSD regulations.
40 CFR Part 52.1470	SIP Rules	Applicable – Sunrise Landfill is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	Sunrise Landfill is in compliance with applicable state SIP requirements including monitoring and record keeping of emissions data.
40 CFR Part 60 Subpart A	Standards of Performance for New Stationary Sources – General Provisions	Applicable – Sunrise Landfill is an affective facility under the regulations.	Applicable monitoring, recordkeeping, and reporting requirements.	Sunrise Landfill complies with applicable requirements.
40 CFR Part 60 Subpart Cc	Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	Applicable – Sunrise Landfill has emission units that are subject to the requirements of this subpart.	Applicable monitoring, recordkeeping, and reporting requirements.	Sunrise Landfill complies with applicable requirements.
40 CFR Part 60 Subpart WWW as reference in Subpart Cc	Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills	Not Applicable – Sunrise Landfill is not an affected facility under this regulation, however by reference the monitoring, recordkeeping, and reporting must be followed for compliance with 40 CFR § 60 Subpart Cc.	Not Applicable.	Not Applicable.
40 CFR Part 63 Subpart AAAA	National Emission Standards for Hazardous Air Pollutants for Source Categories – Municipal Solid Waste Landfills	Applicable – Sunrise Landfill has emission units that are subject to the requirements of this subpart.	Applicable monitoring, recordkeeping, and reporting requirements.	Sunrise Landfill complies with applicable requirements.
40 CFR Part 64	CAM	Not Applicable – Sunrise Landfill has a combustion flare as a control device and it is not used to achieve compliance with the emission limits.	Not Applicable.	Not Applicable.
40 CFR Part 68	Chemical Accident Prevention Provisions	Not Applicable – Sunrise Landfill does not store or handle any chemicals that are subject to 40 CFR Part 68.	Sunrise Landfill adheres to source management programs.	Sunrise Landfill complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR Part 70	Federally Mandated Operating Permits	Applicable – Sunrise Landfill is a major stationary source and under 40 CFR Part 70 the initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission units.	Sunrise Landfill reviewed the initial Part 70 OP dated August 16, 2004. This renewal application was submitted before February 13, 2009. Application for new units will be submitted within 12 months of startup.	Sunrise Landfill complies with applicable requirements.
40 CFR Part 72	Acid Rain Permits Regulations	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR Part 73	Acid Rain Sulfur Dioxide Allowance System	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR Part 75	Acid Rain CEMS	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR Part 82	Protection of Stratospheric Ozone	Not Applicable.	Not Applicable.	Not Applicable.

C. Summary of Monitoring for Compliance

Table V-C-1: Summary of Monitoring for Compliance

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A01	Landfill Gas Collection and Combustion Flare, Air Assisted, Open Flare Design	CO NO _x SO ₂ PM ₁₀ VOC CH ₄ NMOC HAPs H ₂ S	AQR Sections 12, 40 CFR § 60.18, 40 CFR § 60 Subpart Cc, relevant sections of 40 CFR § 60 Subpart WWW for complying ony, and 40 CFR § 63 Subpart AAAA	<p>Measure the pressure, monitor the nitrogen or oxygen concentration, and monitor temperature of landfill gas.</p> <p>Measure the pressure in the gas collection header.</p> <p>Measurements of gas flow rate.</p> <p>Btu content of landfill gas.</p> <p>Chemical testing of landfill gases for CH₄,</p>	<p>Monthly measurements at each wellhead.</p> <p>Monthly pressure measurements of gas collection header at each individual well.</p> <p>Quarterly and annual records showing landfill gas flow rate.</p> <p>Quarterly testing for Btu content of landfill gas.</p> <p>Quarterly visible emission from the flare employing Method 22.</p> <p>Annual chemical analysis on the landfill gas for CH₄, NMOC, and H₂S.</p> <p>Records showing collateral emission and destruction efficiency of combustion flare</p>

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
				NMOC, and H ₂ S. Visible emissions in any 2 hour period.	Recordkeeping is required for compliance demonstration.
A02	Landfill Fugitive Emissions	VOC CH ₄ NMOC HAPs H ₂ S	AQR Sections 12, 40 CFR § 60.18, 40 CFR § 60 Subpart Cc, and relevant sections of 40 CFR § 60 Subpart WWW	Monitor the landfill cover integrity. Monitor fugitive CH ₄ Calculate fugitive emission from the landfill.	Monthly monitoring of landfill cover. Quarterly monitoring of the fugitive CH ₄ concentration in ppm. Annual calculation of fugitive emission from the landfill, based on quarterly surface testing and chemical analysis. Recordkeeping is required for compliance demonstration.

VI. EMISSION REDUCTION CREDITS (OFFSETS)

The source is subject to offset requirements in accordance with AQR Section 12.7. All offset requirements have been met.

VII. PERMIT SHIELD

None requested by the source.

VIII. ADMINISTRATIVE REQUIREMENTS

Section 12.5 requires that Air Quality identify the original authority for each term or condition in the Part 70 OP. Such reference of origin or citation is denoted by [*italic text in brackets*] after each Part 70 OP condition.

Air Quality proposes to issue the Part 70 OP conditions on the following basis:

Legal:

On December 5, 2001 in Federal Register Volume 66, Number 234 FR30097 the EPA fully approved the Title V OP Program submitted for the purpose of complying with the Title V requirements of the 1990 CAAA and implementing 40 CFR Part 70.

Factual:

Republic Silver State Disposal, Inc., Sunrise Municipal Solid Waste Landfill has supplied all the necessary information for Air Quality to draft Part 70 OP conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

Air Quality has determined that Sunrise Landfill will continue to determine compliance through the use of performance testing, quarterly reporting, and daily and monthly recordkeeping, coupled with annual certifications of compliance. Air Quality proceeds with the preliminary decision that a Part 70 OP should be issued as drafted to Republic Silver State Disposal, Inc., Sunrise Municipal Solid Waste Landfill for a period not to exceed five (5) years.